



Universidade de
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Departamento de Biologia

Ana Carla Ramos da Silva Gonçalves **Revisão taxonómica do género *Calendula* L. (Asteraceae – Calenduleae) na Península Ibérica e Marrocos**

Taxonomic revision of the genus *Calendula* L. (Asteraceae – Calenduleae) in the Iberian Peninsula and Morocco

Supplementary material 1

**Specimens examined from Iberian
Peninsula and Balearic Islands**

C. suffruticosa Vahl (1791: 94)

subsp. *cinerea* (Ohle) P.Silveira & A.C.Gonç. in Silveira et al. (2013: 52)

Additional specimens examined: PORTUGAL. Algarve: Cabo de São Vicente, [37°01' N, 9°00' W], *Sampaio, G. s.n.* (PO!); *in algarb. maritimis ad Cabo São Vicente rariom*, [37°01' N, 9°00' W], June 1847, *unclear s.n.* (K!); Cabo de São Vicente, [37°01' N, 9°00' W], June 1887, *Moller, A. 473* (BM!, COI!, G!); [37°01' N, 9°00' W], May 1888, *Moller, A. 1373* (LISI!, COI!); [37°01' N, 9°00' W], September 1940, *Vasconcellos, J. s.n.* (LISI!); [37°01' N, 9°00' W], September 1940, *Vasconcellos, J. s.n.* (LISI!); [37°01' N, 9°00' W], September 1940, *Vasconcellos, J. s.n.* (LISI!); [37°01' N, 9°00' W], 23 March 1964, *Fernandes, A.; Fernandes, R.; Matos, J. 9021* (COI!); [37°01' N, 9°00' W], 2 October 1966, *Kaae, N. s.n.* (C!); Cabo de São Vicente, [37°01' N, 9°00' W], 21 March 1967, *Casaseca, B. s.n.* (MACB!); Cabo de São Vicente, [37°01' N, 9°00' W], 12 August 1968, *Rechinger, K.H. s.n.* (AVE!); [37°01' N, 9°00' W], 20 April 1968, *Malato-Beliz, J.V.C. 5866* (SEV, MA!); [37°01' N, 9°00' W], 20 April 1968, *Galiano, E.F. et al. 5866* (SEV!); [37°01' N, 9°00' W], 20 April 1968, *Malato-Beliz, J.V.C. et al. 5800* (ELVE!); Cabo de São Vicente, near the lighthouse, [37°01' N, 9°00' W], 20 April 1968, *Rozeira, A.; Alte, J.; Costa, G.; Serra, A. s.n.* (PO!); Cabo de San Vicente, [37°01' N, 9°00' W], 20 April 1968, *Bellot, F.; Casaseca, B. s.n.* (MA!, MACB!, MACB!, RNG!); Cabo de São Vicente, [37°01' N, 9°00' W], 20 April 1968, *Sampaio, G. 10392* (COI!); Cabo San Vicente, [37°01' N, 9°00' W], 20 April 1968, *Segura Zubizarreta, A. 10479* (MA!); Cabo de São Vicente, [37°01' N, 9°00' W], 15 June 1970, *Kaae, N. s.n.* (C!); Cape St. Vicente, 200 m, [37°01' N, 9°00' W], 1 April 1971, *Davis 50940* (BM!, RNG!); 200 m, [37°01' N, 9°00' W], 1 April 1971, *Davis 50937* (BM, RNG!); Cabo de São Vicente, [37°01' N, 9°00' W], 26 April 1976, *Malato-Beliz, J.V.C. et al. 3205* (ELVE!, MA!, BCN!); Cabo de S Vicente, [37°01' N, 9°00' W], 26 May 1978, *Talavera, S.; Devesa, J.; Pastor, J. s.n.* (SEV!); Cabo de São Vicente, [37°01' N, 9°00' W], 13 April 1978, *Matos, A.; Cabral, J.L. 14 410* (COI!); Cabo São Vicente, *pr. oppidulum* Sagres, 100 m, [37°01' N, 9°00' W], 26 March 1978, *Fernández Casas, J.; Molero, J.; Garmendia, F.M.; Pajarón, S.; Pujadas, J. FC 2164* (SEV!, MA!, COI!, MAF!, C!, G!); Cabo de San Vicente, [37°01' N, 9°00' W], 26 March 1978, *Fernández Casas, J.; Molero, J.; Pujadas, J. s.n.* (BCN, BCN!); [37°01' N, 9°00' W], 3 May 1980, *Amich, F.; Rico, E.; Sanchez, J. s.n.* (MACB, SALA!); [37°01' N, 9°00' W], 21 April 1981, *Casaseca, B.; Ladero, M.; Navarro, F. s.n.* (MA, MAF, COI!); [37°01' N, 9°00' W], 21 April 1981,

Casaseca, B.; Ladero, M.; Navarro, F. s.n. (COI!); [37°01' N, 9°00' W], 21 April 1981, *Casaseca, B. s.n.* (MAF!); Vila do Bispo, Sagres, North of Cabo de São Vicente, [37°01' N, 9°00' W], 23 April 1988, *Espírito Santo, M.D. s.n.* (LISI!); 5 km West of Cabo São Vicente frân Sagres, [37°00' N, 8°56' W], 6 April 1989, *Ericson, R. s.n.* (OHN!); Cape St. Vicente, [37°01' N, 9°00' W], 14 March 1990, *Hanson, R.G. s.n.* (RNG!); Cabo de São Vicente, [37°01' N, 9°00' W], 28 April 1991, *Armando; Serra; Loureiro s.n.* (PO!); Cape St. Vicente, [37°01' N, 9°00' W], 17 May 1992, *Bowen, H.J.M. 8306* (RNG!); Vila do Bispo, Sagres, Cabo de São Vicente, [37°01' N, 9°00' W], 30 March 1999, *Aran, V.J.; Tohá, M.J. 65 96 02b* (MAF!); Vila do Bispo, Cabo de S. Vicente, 60 m, [37°01'26" N, 8°59'44" W], 28 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3256* (AVE!);

subsp. *tomentosa* (Ball) Murbeck (1905: 9)

Additional specimens examined: SPAIN. **Cádiz:** Tarifa, [36°00'45" N, 5°36'20" W], June, *unclear 37* (MA!); [36°00'45" N, 5°36'20" W], *Borja, J. s.n.* (MAF!); Tarifa, 0 m, [36°00'45" N, 5°36'20" W], 22 April 1951, *Alston, A.H.G. 10 520* (BM,RNG!); [36°00'45" N, 5°36'20" W], 15 May 1959, *Brinton-Lee, D. s.n.* (SEV!); [36°00'45" N, 5°36'20" W], April 1964, *Carbonell, J.B.;Mansanet; Monasterio s.n.* (MA!); [36°00'45" N, 5°36'20" W], April 1964, *Borja, J. s.n.* (MAF!); [36°00'45" N, 5°36'20" W], 11 April 1965, *Carbonell, J.B.;Mansanet; Monasterio s.n.* (MA!); [36°00'45" N, 5°36'20" W], April 1965, *Carbonell, J.B.;Mansanet; Monasterio s.n.* (MA!); [36°00'45" N, 5°36'20" W], April 1965, *Borja, J. s.n.* (MACB,G!); [36°00'45" N, 5°36'20" W], 10 April 1965, *Borja, J.;Mansanet; Monasterio s.n.* (MACB, MA, W, G!); [36°00'45" N, 5°36'20" W], 8 May 1970, *Carbonell, J.B. s.n.* (MA!); Sierra de la Plata, cerro de las Palomas, [36°06'44" N, 5°46'46" W], 6 April 1974, *Silvestre, S.; Talavera, S. 916 74* (SEV!); Tarifa, dunas de Punta Paloma, [36°03'35" N, 5°42'39" W], 28 April 1978, *Luque, T.; Talavera, S.; Valdés, B. 2146 78* (SEV!); Tarifa, [36°00'45" N, 5°36'20" W], 24 February 1979, *Cabezudo, B.; Silvestre, S.; Talavera, S.; Valdés, B. s.n.* (MA!); Tarifa, Punta Paloma, [36°03'35" N, 5°42'39" W], 28 June 1979, *Rivera, J.; Silvestre, S. s.n.* (MA!); Bolónia, pr. El Lentiscal, [36°05'18" N, 5°46'31" W], 24 April 1983, *Sampaio, G. s.n.* (MA!); Tarifa, Punta Paloma, 6 m, [36°03'35" N, 5°42'39" W], 25 May 1989, *unclear s.n.* (MA, ARAN!); Tarifa, acantilados de Tarifa, 10 m, [36°00'45" N, 5°36'20" W], 12 May 1994, *Cabezudo, B.; Nieto, J.M.; Perez-Latorre, A.V. s.n.* (MGC!); Tarifa, P.N. de los Alcornocales. Linea de costa al E de a desembocadura del Rio Guadalmesí, 4 m,

[36°02'21" N, 5°31'17" W], 22 April 1999, *Perez-Latorre, A.V.; Navas, P.; Gil, Y. s.n.* (MGC!); Tarifa, [36°00'45" N, 5°36'20" W], 5 July 2005, *Silveira, P. 2937 b* (AVE!); Tarifa, Punta del Camarinal, 725 m, [36°04'41" N, 5°47'45" W], 31 November 2008, *Navarro, T.; Pascual, V.; Rodríguez, C.M. s.n.* (MGC!); Tarifa, Punta Paloma, [36°03'35" N, 5°42'39" W], 29 June 2008, *Soriguer, F. s.n.* (MGC!); Tarifa, Punta del Camarinal, 725 m, [36°04'41" N, 5°47'45" W], 30 March 2009, *Espejo, J.A.; Rodríguez, V.; Rodríguez, C.M. s.n.* (MGC!); Bolónia, nos muros de uma ponte ao chegar à Praia, [36°05'13" N, 5°46'06" W], 20 June 2009, *Silveira, P. 3042* (AVE!); Tarifa, lado direito da N340 ao sair da povoação em direcção a Algeciras, 107 m, [36°01'38" N, 5°35'12" W], 20 June 2009, *Silveira, P. 3043* (AVE!); lado direito da N340 ao sair da povoação em direcção a Algeciras, 107 m, [36°01'38" N, 5°35'12" W], 14 June 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3270* (AVE!);

subsp. *marginata* (Willd.) Maire (1934: 789)

Additional specimens examined: SPAIN. **Cádiz:** Gibraltar, [36°08'43" N, 5°20'42" E], *Broussonnet, P.M.A. s.n.* (BM!); [36°08'43" N, 5°20'42" E], *Lindley s.n.* (K!); ad Giberaltariam, *Willdenow, C.L. 64* (B!); ad rupes Gibraltariae, [36°08'43" N, 5°20'42" E], June 1837, *Boissier, P.E. s.n.* (K, HAL, G!); [36°08'43" N, 5°20'42" E], June 1837, *Boissier, P.E. s.n.* (K,HAL,G!); Gibraltar, *Boissier, P.E.; Reuter, G. s.n.* (G!); *Boissier, P.E.; Reuter, G. s.n.* (G!); ex rupibus calcarei montis Calpes, [36°08'43" N, 5°20'42" E], 4 June 1851, *Ball, J. s.n.* (K!); Gibraltar, Devil's Tongue, [36°08'43" N, 5°20'42" E], May 1868, *Hurst, H.A. s.n.* (BM!); Gibraltar, 5 May 1873, *Winkler, M. s.n.* (C!); [36°08'43" N, 5°20'42" E], May 1884, *Debeaux, O. s.n.* (MA!); *unclear s.n.* (K!); ad rupes maritima circa Gibraltar *et* Algeciras, [36°08'43" N, 5°20'42" E], 8 May 1895, *Porta, P.; Rigo, G. 268* (K,G!); Gibraltar, near Green's Lodge, [36°08'43" N, 5°20'42" E], 31 June 1912, *Wolley-Dod, A.H. 178* (BM!); Gibraltar, August 1915, *unknown s.n.* (C!); 8 October 1925, *Heard, L. 1923* (BM!); [36°08'43" N, 5°20'42" E], 17 May 1926, *Lindberg, H. 628* (K!); Gibraltar, Punta del Pasagre, [36°09' N, 5°21' W], 16 May 1985, *Bensusan, J.; Talavera, S.; Valdés, B. 124* (SEV,MA,GDA!); Gibraltar, Catalan Bay, [36°08'43" N, 5°20'42" E], 16 May 1985, *Bensusan, J.; Talavera, S.; Valdés, B. 60* (MA!); p. Great Siege Tunnels, 165 m, [36°08'43" N, 5°20'42" W], 5 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3224* (AVE!); por cima dos "Great Sieje Tunnels", 20 April 2013, *Silveira, P.; Gonçalves, A.C.R.S. 3302* (AVE!);

subsp. *vejerensis* P.Silveira & A.C.Gonç., subsp. nov.

Additional specimens examined: SPAIN. **Cádiz:** prope oppidum Vejer, [36°15' N, 5°58' W], 21 March 1845, *Willkomm, H.M. 607* (K!); Vejer, alrededores de la Barca, [36°15' N, 5°58' W], 14 April 1946, *unclear s.n.* (GDA!); [36°15' N, 5°58' W], 14 April 1946, *Muñoz Medina, J. s.n.* (GDA!); Vejer de la Frontera, [36°15' N, 5°58' W], 26 March 1977, *Silvestre, S. s.n.* (SEV!, MA!); Vejer de la Frontera, proximidades de las huertas del Soto, "La Herradura", [36°15' N, 5°58' W], 27 March 2003, *Asensi, A.; Solanos, F. s.n.* (MGC!); margem da A-314, à entrada de La Barca de Vejer, 31 m, [36°15'18" N, 5°57'30" W], 21 April 2013, *Silveira, P.; Gonçalves, A.C.R.S. 3304* (AVE!);

subsp. *trialata* P.Silveira & A.C.Gonç., subsp. nov.

Additional specimens examined: SPAIN. **Cádiz:** Cádiz Province, [36°32'01" N, 6°17'58" W], 7 April 1972, *Bramwell, D.; Richardson, I.B.K.; Murray, B.G. 680* (K,RNG!); Playa de Conil, [36°16'35" N, 6°05'15" W], 19 March 1973, *Socorro, D. s.n.* (MA!); [36°16'35" N, 6°05'15" W], 19 March 1973, *Socorro, O. s.n.* (GDA!); Conil, [36°16'35" N, 6°05'15" W], 23 April 1973, *Hurtado, J. s.n.* (GDA!); Cabo de Trafalgar, [36°10'58" N, 6°02'03" W], 11 May 1978, *Talavera, S.; Devesa, J.; Pastor, J. 16* (SEV,MA!); Cabo Roche, entre Chiclana de la Frontera y Vejer de la Frontera, [36°17'48" N, 6°08'24" W], 13 April 1978, *Luque, T.; Valdés, B. 1673 78* (SEV,MA!); Zahara de los Atunes, [36°08'08" N, 5°50'43" W], 27 April 1978, *Luque, T.; Talavera, S.; Valdés, B. 2089 78* (MA!); Barbate de Franco, 40 m, [36°11'23" N, 5°55'18" W], 2 May 1980, *Diez, M.J.; Romero, C.; Silvestre, S. s.n.* (SEV, RNG!); Chiclana de la Frontera, Cabo de Roche, [36°17'48" N, 6°08'24" W], 27 March 1981, *Romero, C.; Silvestre, S. 117 81* (MA,G!); Barbate de Franco, [36°11'23" N, 5°55'18" W], 10 April 1982, *Arroyo, J. s.n.* (SEV!); Tarifa, junto al Cabo de Gracia, 60 m, [36°05'20" N, 5°48'41" W], 1 April 1996, *Aran, V.J.; Tohá, M.J. 65 96 02 a* (MA,MACB!); Conil de la Frontera, a Norte, na arriba entre a povoação e o porto, 20 m, [36°17'49" N, 6°08'01" W], 20 June 2009, *Silveira, P. 3 041* (AVE!); 17 m, [36°17'48" N, 6°08'24" W], 24 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3 185* (AVE!); 24 m, [36°06'13" N, 5°49'26" W], 6 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3 225* (AVE!); 8 m, [36°08'19" N, 5°50'56" W], 6 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3 226* (AVE!); 13 m, [36°10'59" N, 6°02'04" W],

6 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3 227* (AVE!); 12 m, [36°19'59" N, 6°09'43" W], 22 April 2013, *Silveira, P.; Gonçalves, A.C.R.S. 3308* (AVE!); entre Barbate e Los Caños de Meca, 39 m, [36°11'04" N, 5°57'11" W], 22 April 2013, *Silveira, P.; Gonçalves, A.C.R.S. 3310* (AVE!); entre Barbate e Los Caños de Meca, 39 m, [36°11'04" N, 5°57'11" W], 6 May 2014, *Silveira, P.; Gonçalves, A.C.R.S. 3310 b* (AVE!);

subsp. *carbonellii* Ohle (1974: 268)

Additional specimens examined: SPAIN. **Cádiz:** Gibraltar, *Sampaio, G. s.n.* (MA!); *Willkomm, H.M. 607* (K, G!); *Boissier, P.E.; Reuter, G. s.n.* (G!); in Monte Gibraltar, August 1825, *Salzmann, P. s.n.* (K!); Gibraltar, [36°08' N, 5°20' W], December 1840, *Lemann, C. s.n.* (K!); December 1840, *Lemann, C. s.n.* (K!); circa Gibraltar et San Roque, 1849, *Boissier, P.E.; Reuter, G. s.n.* (K!); Gibraltar, 24 April 1876, *Winkler, M. s.n.* (K!); 24 April 1876, *Winkler, M. s.n.* (K!); 17 June 1883, *Hjalmar Nilsson, N. 1206* (BM, UPS, C!); Gibraltar, 19 April 1909, *Bicknell, C.; Pollini, L. s.n.* (MA!); Gibraltar, 8 January 1912, *Wolley-Dod, A.H. 104* (BM!); Gibraltar, Europa Point, 20 May 1924, *Ellman, E.; Hubbard, C. 729* (K!); entre Marbella e Fuengirola, a N de El Faro, 3 m, [36°30'53" N, 4°37'56" W], 20 June 2009, *Silveira, P. 3044* (AVE!); Gibraltar, Europa Point, 12 m, [36°07'11" N, 5°21'03" W], 5 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3223* (AVE!); **Málaga:** Torremolinos, [36°37' N, 4°30' W], *R.L.P. 2113* (GDA!); [36°37' N, 4°30' W], 30 May 1916, *Gros, E. s.n.* (MA!); Marbella, [36°31' N, 4°53' W], 27 November 1965, *Carbonell, J.B. s.n.* (SEV!); [36°31' N, 4°53' W], 27 September 1965, *Borja, J. s.n.* (BCN, MAF!); Málaga, Marbella, *Borja, J. s.n.* (MAF!); Playas del termino de Estepona, [36°26' N, 5°08' W], 8 April 1977, *Conde, F.; Guerra, J. s.n.* (MGC!); Torremolinos, [36°37' N, 4°30' W], 8 September 1983, *Fragoso, M. 10* (MA!); Marbella, Puerto Cabopino, km 202, CN 340, 2 m, [36°31' N, 4°53' W], 27 November 1984, *Michel, G. s.n.* (MGC!); Marbella, entre le Don Carlos et l'Arroyo de Vibora, [36°31' N, 4°53' W], 24 May 1985, *Michel, G. s.n.* (MGC!); Fuengirola, 3–8 m, [36°30'55" N, 4°37'56" W], 24 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3190 b* (AVE!); Fuengirola, 10–20 m, [36°30'44" N, 4°38'08" W], 5 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3222* (AVE!).

subsp. *algarbiensis* (Boiss.) Nyman (1878: 398)

Additional specimens examined: SPAIN. **La Coruña (Coruña):** La Coruña, Ponte-Ceso, Niñons, Playa del Morro, [43°18' N, 8°54' W], *unclear s.n.* (MACB!); Boiro, Praia de Baraña, [42°39' N, 8°54' W], 19 April 1986, *Pulgar, I.;Guitan, P. s.n.* (SANT!); Cabo de Cruz, Praia de Carrangueiros, [42°39' N, 8°54' W], 19 April 1986, *Izco, J.;Guitan, P. s.n.* (SANT!); Estaca de Bares, Playa de Estaca de Bares, [43°46' N, 7°42' W], 21 August 1987, *Lago, E.;Ferreiro, C.; Paz, A. 1189 EL* (MA!); A Coruña, Manon, Porto de Vares, [43°39' N, 7°44' W], 27 July 1994, *Soura, X. s.n.* (SANT!); A Coruña, Carnota, Praia de San Pedro, [42°51' N, 9°06' W], 18 June 1994, *Lonzán, R.J. 128* (SANT!); A Coruña, Boiro, Cabo de Cruz, Praia dos Carrangueiros, [42°39' N, 8°54' W], 18 April 1996, *Izco, J.;Guitan, P. s.n.* (SANT!); A Coruña, Rianxo, Praia de Poron, [42°39' N, 8°49' W], 18 September 1996, *Real, V. s.n.* (SANT!); A Coruña, Rianxo, Isorna, [42°40' N, 8°45' W], 17 April 1997, *Real, V. s.n.* (SANT!); Ponte-Ceso, Miñons, Playa del Momo, [42°57' N, 9°08' W], 10 August 2000, *Martin-Blanco s.n.* (MA,MACB!); Vilanova de Arousa, Playa de Las Sinas, entre el camping las Sinas y Vilanova, [42°33' N, 8°52' W], 26 March 2000, *Izco, J. s.n.* (SANT!); A Coruña, Manon, Praia de Vares, [43°39' N, 7°44' W], 27 May 2005, *Fagundez, J. 3025* (SANT!); Ribeira, Corrubedo, en el extremo sur del arenal, a la altura de la laguna de Vixan, [42°34' N, 9°05' W], 22 April 2005, *Amigo, J.;Izco, J. s.n.* (SANT!); **Pontevedra:** Insula Ons, [42°23' N, 8°56' W], 1899, *Merino, P. 1515* (MA,MAF!); Catoira, Torres del Oeste, [42°40' N, 8°43' W], 5 May 1957, *Bellot, F.;Casaseca, B. s.n.* (SEV,MA,SANT!); [42°40' N, 8°43' W], 6 May 1962, *Bellot, F.;Casaseca, B. s.n.* (MA,MACB,RNG!); [42°40' N, 8°43' W], 5 May 1962, *Bellot, F. 651* (SEV,COI,MGC!); Catoira. Torres del Oeste, [42°40' N, 8°43' W], 6 May 1962, *Bellot, F.;Casaseca, B. s.n.* (BCN,SALA!); Catoira, Torres del Oeste, [42°40' N, 8°43' W], 6 May 1962, *Casaseca, B. s.n.* (MACB,SALA,MA!); [42°40' N, 8°43' W], 13 June 1979, *Fernández Diez, F.J. s.n.* (SEV,MA,BCN,SALA,GDA!); Isla de Arosa, [42°33' N, 8°52' W], 27 June 1983, *García Martínez, J.R. s.n.* (MA!); Playa la Lanzada, [42°27' N, 8°53' W], 9 August 1984, *García Martínez, J.R. s.n.* (MA!); Isla de Ons, [42°23' N, 8°56' W], 14 August 1984, *Lago, E.;Castroviejo, S.; Valdés Bermejo, E. 326 EL* (MA!); [42°23' N, 8°56' W], 14 August 1984, *Castroviejo, S. 9346* (MA!); Vigo, Islas Ciés, Playa de San Martiño, [42°13' N, 8°54' W], 29 August 1986, *Castroviejo, S. 9797 SC* (MA!); Villanueva de Arosa, Isla de Arosa, [42°33' N, 8°52' W], 22 December 1987, *Lago, E.;Samartin, A. 1347 EL* (MA!); O Grove, isla de A Toxa,

Playas mirando a North, [42°29' N, 8°50' W], 20 August 1991, *Izco, J. s.n.* (MA,COI,BCN,MACB!); [42°30' N, 8°52' W], 20 August 1991, *Izco, J. s.n.* (SANT,GDA!); entre Lanzada e O Grove, [42°27' N, 8°53' W], 30 October 1996, *Sanchez, J.M. s.n.* (SANT!); Vilagarcía, Playa das Patiñas, junto al puente para Isla Arousa, [42°34' N, 8°53' W], 6 May 2001, *Izco, J. s.n.* (SANT!); Illa de Arousa, Escorrexadoira, [42°33' N, 8°52' W], 16 February 2005, *Fagundez, J. 3026* (SANT!); Lanzada, Capela da Lanzada, [42°27' N, 8°53' W], 15 August 2006, *Silveira, P.; Carqueja MJM 2976* (AVE!); Isla de Ciés, junto ao Faro de Ciés, 160 m, [42°13' N, 8°54' W], 16 September 2006, *Silveira, P.; Carqueja MJM 2977* (AVE!); PORTUGAL. **Algarve:** [37°00' N, 8°56' W], *Sampaio, G. 3659* (COI!); [37°00' N, 8°57' W], *Sampaio, G. 2995* (COI!); [37°00' N, 8°57' W], *Sampaio, G. 2410* (COI!); Lagos, [37°06' N, 8°40' W], 5 May 1853, *Bourgeau, E. 2080* (K, RNG, C, G!); Vila do Bispo, Sagres, [37°00' N, 8°56' W], 20 April 1868, *Rozeira, A.; Alte, J.; Costa, G.; Serra, A. s.n.* (PO!); Portimão, [37°08' N, 8°32' W], 1917, *Sampaio, G. s.n.* (PO!); [37°08' N, 8°32' W], April 1917, *Sampaio, G. s.n.* (PO!); [37°08' N, 8°32' W], April 1917, *Sampaio, G. 3304* (MA, BM, COI, COI, K, G!); [37°08' N, 8°32' W], April 1917, *Sampaio, G. s.n.* (BC!); Straub Klepper ved Portimão, [37°08' N, 8°32' W], April 1921, *Rahn, K. 514* (C!); 20 m, [37°08' N, 8°32' W], 15 May 1947, *Silva; Myre, M. 1988* (COI!); Algarve, [37°10' N, 8°15' W], April 1950, *Malato-Beliz, J.V.C.; Guerra, J.A.; Ruivo s.n.* (ELVE, MA!); Algarve Vila do Bispo, Bussanico da ponta Ruiva, [37°04' N, 8°58' W], 3 April 1954, *Silva Melo, J. s.n.* (LISI!); Praia da Rocha, [37°07' N, 8°32' W], 24 April 1956, *Malato-Beliz, J.V.C.; et al. 3029* (ELVE, MA, MAF!); Albufeira, [37°05' N, 8°15' W], 23 April 1956, *Malato-Beliz, J.V.C.; et al. 2980* (ELVE, MA!); Sagres, [37°00' N, 8°56' W], 9 April 1959, *Rainha, B. 3976* (MACB, MA!); Algarve [37°00' N, 8°56' W], 10 June 1960, *Fernandes, A.; Fernandes, R.; Matos, J. 7391* (COI!); Portimão, Praia da Rocha, caminho para o mar, [37°07' N, 8°32' W], 18 June 1962, *Rozeira, A.; Koepp, K.; Costa, G. s.n.* (PO!); Portimão, próximo da vila, [37°08' N, 8°32' W], 2 April 1964, *Rozeira, A.; Koepp, K.; Costa, G. s.n.* (PO!); Lagos, Vila do Bispo, Miradouro da Praia do Castelejo, [37°06' N, 8°57' W], 14 February 1964, *Santos Júnior s.n.* (PO!); Portimão, Vau, [37°08' N, 8°32' W], January 1965, *Costa, C.A. s.n.* (LISI!); Cabo de São Vicente, [37°01' N, 9°00' W], 2 October 1966, *Kaae, N. 1* (C!); In rather open scrub, on hillside above Praia de Craveiros, [37°06' N, 8°28' W], 5 April 1967, *Wadsworth, R. M.; Watson, E.V. s.n.* (RNG!); Algarve, Punta de Sagres (Fortaleza), [37°00' N, 8°57' W], 12 August 1968, *Rechinger, K.H. O 2616* (HAL!); Vila do Bispo, Ponta de Sagres, [37°00' N, 8°57' W],

20 April 1968, *Fonseca, M.M.; Vasconcelos, J. 68165* (LISI!); Ponta de Sagres, [37°00' N, 8°57' W], 20 April 1968, *Galiano, E.F.; et al. 5766* (SEV!); [37°00' N, 8°57' W], 20 April 1968, *Malato-Beliz, J.V.C.; et al. 5766* (ELVE!); parte direita da estrada de Lagos para Sagres, [37°06' N, 8°40' W], 30 May 1968, *Rozeira, A.; Serra, A. s.n.* (PO!); Ponta de Sagres, dentro do Castelo, [37°00' N, 8°57' W], 30 May 1968, *Rozeira, A.; Serra, A. s.n.* (PO!); Praia de Monte Clérigo, [37°20' N, 8°51' W], 19 April 1968, *Bellot, F.; Casaseca, B. s.n.* (MA, MACB!); Vila do Bispo, Ponta de Sagres, [37°00' N, 8°57' W], 20 April 1968, *Fonseca, M.M.; Vasconcelos, J. 68165* (LISI!); Alvor (S Portimão), [37°08' N, 8°34' W], 10 June 1970, *Kaae, N. 1* (C!); Fortaleza, near Sagres, [37°00' N, 8°56' W], 15 June 1970, *Kaae, N. 2* (C!); Alvor (S Portimão), [37°08' N, 8°34' W], 10 June 1970, *Kaae, N. s.n.* (C!); Praia de Odeceixe, 50 m, [37°26' N, 8°46' W], 30 March 1971, *Davis 50881* (BM, RNG!); São Vicente, April 1972, *Pedersen, A. s.n.* (C!); La Punta del Sagres, [37°00' N, 8°57' W], 27 March 1980, *Socorro, O.; Hurtado, J. s.n.* (GDA!); Ponta de Sagres, cerca del Cabo de San Vicente, [37°00' N, 8°57' W], 18 April 1981, *Loidi, J. s.n.* (MA, MAF, MACB!); Aljezur, Praia de Monte Clérigo, [37°20' N, 8°51' W], 21 March 1983, *Diez Garretas, B.; Asensi, A. s.n.* (MGC!); Sagres, entre a Ponta de Sagres e a de São Vicente, [37°00' N, 8°57' W], 9 February 1986, *Moura, A.R. 2849* (MA, COI, AVE!); W coast, Monte Clérigo, [37°20' N, 8°51' W], 19 March 1986, *Maxted, J. 53* (RNG!); Lagos, sobre as falésias, Praia do Pinhão, [37°06' N, 8°40' W], 12 September 1987, *Caldas, F.B. s.n.* (PO!); Aljezur, Praia de Monte Clérigo, [37°19' N, 8°48' W], 24 April 1988, *Espírito Santo, M.D. s.n.* (LISI!); Lagos, Ponta da Piedade, [37°05' N, 8°40' W], 9 April 1988, *Costa, J.C. s.n.* (LISI!); Portimão, Alvor, Rocha, Vila Isabel, [37°08' N, 8°34' W], 16 June 1988, *Costa, J.C. s.n.* (LISI!); Vila do Bispo, Praia do Castelejo, 5 m, [37°06' N, 8°57' W], 8 December 2000, *Aedo, C. 5952* (MA!); Paul de Budens, boca do Rio Burgau, 50 m, [37°05' N, 8°50' W], 6 June 2001, *Nisa, S.; Medina, L.; Pardo de Santayana, M. SN 424* (MA!); Rocha de Pena, 28 March 2010, *Thornberg, M. s.n.* (LD!); Lagos, Ponta da Piedade, 27 m, [37°04'53" N, 8°40'09" W], 28 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3254* (AVE!); Portimão, 30 m, [37°07'08" N, 8°33'02" W], 28 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3255* (AVE!); Vila do Bispo, 67 m, [37°02'49" N, 8°58'35" W], 28 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3257* (AVE!); **Baixo Alentejo:** entre Odemira e Vila Nova de Milfontes, margem do Rio Mira, [37°35' N, 8°29' W], March 1899, *Sampaio, G. s.n.* (PO!); Odemira, Casa Branca, [37°36' N, 8°38' W], March 1899, *Sampaio, G. 1544* (MA, COI, G!); Milfontes, [37°43' N, 8°47' W], April 1903, *Sampaio,*

G. s.n. (PO!); Milfontes, [37°43' N, 8°47' W], April 1905, *Sampaio, G. s.n.* (PO!); Odemira, [37°35' N, 8°29' W], April 1905, *Sampaio, G. s.n.* (PO!); Vila Nova de Milfontes, Rio, [37°43' N, 8°47' W], May 1905, *Sampaio, G. s.n.* (PO!); Vila Nova de Milfontes, [37°43' N, 8°47' W], 1905, *Sampaio, G. s.n.* (PO!); Milfontes, [37°43' N, 8°47' W], August 1905, *Sampaio, G. s.n.* (MA!); V. N. Milfontes, [37°43' N, 8°47' W], August 1905, *Sampaio, G. s.n.* (BC!); Vila Nova de Milfontes, [37°43' N, 8°47' W], August 1905, *Sampaio, G. s.n.* (BR!); [37°43' N, 8°47' W], August 1905, *Sampaio, G. s.n.* (C!); Vila Nova de Milfontes, [37°43' N, 8°47' W], 27 April 1956, *Malato-Beliz, J.V.C.; et al.* 3275 (ELVE, MA, BCN!); Praia da Zambujeira, [37°31' N, 8°47' W], 19 April 1968, *Galiano, E.F.; et al.* 5657 (SEV!); [37°31' N, 8°47' W], 19 April 1968, *Malato-Beliz, J.V.C.; et al.* 5657 (ELVE, MA!); Odemira, Praia da Zambujeira, [37°31' N, 8°47' W], 19 April 1968, *Rozeira, A.; Alte, J.; Costa, G.; Serra, A. s.n.* (PO!); Sines, dunas de São Torpes, [37°55' N, 8°48' W], 18 April 1968, *Rozeira, A.; Alte, J.; Costa, G.; Serra, A. s.n.* (PO!); Sines, São Torpes, [37°55' N, 8°48' W], 30 May 1968, *Rozeira, A.; Serra, A. s.n.* (PO!); [37°55' N, 8°48' W], 18 October 1968, *Sampaio, G.* 10243 (COI!); Zambujeira, [37°31' N, 8°47' W], 19 April 1968, *Segura Zubizarreta, A.* 10477 (MA!); [37°55' N, 8°48' W], 25 April 1970, *Fernandes, A.; Fernandes, R.; Matos, J.* 11119 (COI!); Sines, Praia de S. Torpes, próximo do paiol, [37°55' N, 8°48' W], 13 June 1981, *Grandvaux Barbosa, L.A.; Gomes; Moreno* 13912 (MA, RNG!); Sines, a S de S. Torpes, próximo do Burrinho, nas dunas marítimas, [37°55' N, 8°48' W], 27 March 1981, *Grandvaux Barbosa, L.A.* 13586 A (RNG!); Sines, a S de S. Torpes, Praia do Burrinho, [37°52' N, 8°48' W], 27 March 1981, *Grandvaux Barbosa, L.A.* 13583 (MA!); Odemira, Vila Nova de Milfontes, Moinho da Asneira, junto ao sapal, [37°43' N, 8°47' W], 14 September 1989, *Costa, J.C. s.n.* (LISI!); Odemira, 16 m, [37°31'20" N, 8°47'17" W], 28 May 2012, *Silveira, P.; Gonçalves, A.C.R.S.* 3258 (AVE!); Odemira, 20 m, [37°39'07" N, 8°48'03" W], 28 May 2012, *Silveira, P.; Gonçalves, A.C.R.S.* 3259 (AVE!); Sines 24 m, [37°54'11" N, 8°47'41" W], 29 May 2012, *Silveira, P.; Gonçalves, A.C.R.S.* 3260 (AVE!); **Beira Litoral:** Cabo Mondego, a meio caminho de Buarcos, na mina de carvão, [40°11' N, 8°55' W], 2 March 1868, *Schmitz, E. s.n.* (PO!); [40°09' N, 8°52' W], September 1877, *Moller, A. s.n.* (COI!); Figueira da Foz, [40°09' N, 8°52' W], September 1882, *Moller, A. s.n.* (LISI!); [40°09' N, 8°52' W], September 1882, *Moller, A. s.n.* (COI!); *in argillosis as maris litus prope* Figueira da Foz, [40°09' N, 8°52' W], September 1882, *Moller, A.* 1592 (COI, G!); [40°05' N, 8°50' W], September 1882, *Moller, A.* 660 (COI!); Figueira da Foz, [40°09' N, 8°52' W], September 1882, *Moller, A. s.n.* (PO,COI!);

Figueira da Foz, Viso, [40°09' N, 8°52' W], September 1888, *Moller, A. s.n.* (MA!); [40°12' N, 8°51' W], August 1895, *Ferreira, M. s.n.* (COI!); sopé da Serra da Boa Viagem, 29TNE1249, [40°11' N, 8°52' W], 29 June 1929, *Armando; Serra; Loureiro s.n.* (PO!); Figueira da Foz, [40°09' N, 8°52' W], 31 May 1936, *Exell, A.W. 1073* (BM!); Cabo Mondego, [40°11' N, 8°55' W], 30 April 1948, *Branquet, B.; et al. s.n.* (PO!); [40°11' N, 8°55' W], 11 August 1950, *Matos, J.; Matos, A. s.n.* (COI!); [40°11' N, 8°55' W], 14 May 1951, *Silva, P.; Fontes, F.; Silva, M. 4533* (COI!); [40°12' N, 8°51' W], 22 January 1966, *Moura, A.R. 220* (COI!); [40°11' N, 8°52' W], 30 May 1967, *Sampaio, G. 524* (COI!); Cabo Mondego, escarpa do farol, [40°11' N, 8°55' W], 13 July 1971, *Rozeira, A.; Barreto, D.; Serra, A.; Araújo, J. s.n.* (PO!); Figueira da Foz, Serra da Boa Viagem, Landeira, [40°11' N, 8°55' W], 13 June 1972, *Rozeira, A.; Araújo, J.; Bernardino, C. s.n.* (PO!); entre a Figueira da Foz e Buarcos, [40°10' N, 8°53' W], 6 December 1974, *Malato-Beliz, J.V.C.; Guerra, J.A. 12403* (ELVE,MA!); Cabo Mondego, escarpa do farol, [40°11' N, 8°55' W], 28 May 1975, *Pereira, A.; Serra, A.; Bernardino, C. s.n.* (MA,PO!); [40°11' N, 8°55' W], 28 May 1975, *Serra, A.; Bernardino, C. s.n.* (PO!); [40°11' N, 8°55' W], 15 March 1978, *Matos, A.; Alves, M. 14339* (COI!); Figueira da Foz, Quiaios, Murtinheira, Cabo Mondego, [40°11' N, 8°55' W], 6 May 1983, *Gomes Pedro, J.; Costa, J.F. 23315* (LISI!); [40°11' N, 8°55' W], 19 September 1983, *Gomes Pedro, J.; Costa, J.F. 24259* (LISI!); Serra da Boa Viagem, [40°11' N, 8°52' W], 7 August 1984, *Serra, A.; Loureiro s.n.* (PO!); Figueira da Foz Figueira da Foz, Cabo Mondego, [40°11' N, 8°55' W], 14 June 2005, *Silveira, P. 3007* (AVE!); Figueira da Foz, Miradouro da Serra da Boa Viagem, 257 m, [40°12'09" N, 8°52'47" W], 4 October 2008, *Silveira, P.; Nora S 3028* (AVE!); Figueira da Foz, Serra da Boa Viagem, na falésia a ca. 500 m a N-NE do Farol, 33 m, [40°11'46" N, 8°54'18" W], 4 October 2008, *Silveira, P.; Nora S 3029* (AVE!); Figueira da Foz 33 m, [40°11'46" N, 8°54'18" W], 19 October 2009, *Silveira, P.; Gonçalves, A.C.R.S. 3059* (AVE!); Figueira da Foz, Miradouro da Serra da Boa Viagem, 257 m, [40°12'09" N, 8°52'47" W], 19 October 2009, *Silveira, P.; Gonçalves, A.C.R.S. 3060* (AVE!); Figueira da Foz, Serra da Boa Viagem, na falésia a ca. 500 m a N-NE do Farol, 33 m, [40°11'46" N, 8°54'18" W], 24 March 2015, *Silveira, P.; Faustino, M.V. 3346* (AVE!); Figueira da Foz, Miradouro da Bandeira (Serra Boa Viagem), 257 m, [40°12'09" N, 8°52'47" W], 24 March 2015, *Silveira, P.; Faustino, M.V. 3347* (AVE!); **Estremadura**: Nazaré, [39°36' N, 9°04' W], *Sampaio, G. s.n.* (PO!); São Martinho do Porto, [39°31' N, 9°08' W], *Sampaio, G. s.n.* (PO!); [38°23' N, 8°47' W], *Sampaio, G. 2264* (COI!); Peniche, Nazaré, Sítio da Nazaré, a 200 m do Farol, [39°36'16"

N, 9°05'07" W], *S. Castro 4 in Silveira, P. 3073 (AVE!)*; Peniche, na estrada de entrada na povoação, entre a Praia da Gamboa e a Praia de Peniche Cima, [39°21' N, 9°23' W], *S. Castro 5 in Silveira, P. 3074 (AVE!)*; Sesimbra, Porto de Abrigo, [38°26' N, 9°06' W], 17 April 1868, *Rozeira, A.;Alte, J.; Costa, G.; Serra, A. s.n. (PO!)*; Serra da Arrábida, Mata do Solitário, [38°28' N, 9°00' W], 17 April 1868, *Rozeira, A.;Alte, J.; Costa, G.; Serra, A. s.n. (PO!)*; Tróia, [38°23' N, 8°47' W], August 1879, *Daveau, J. s.n. (K!)*; [38°44' N, 9°11' W], April 1880, *Moller, A. s.n. (COI!)*; [38°44' N, 9°11' W], March 1881, *Daveau, J. s.n. (COI!)*; [38°59' N, 9°05' W], March 1881, *Daveau, J. 339 (COI!)*; Peniche, [39°21' N, 9°23' W], July 1882, *Zugte d'O. Simões, J.M. s.n. (LISI!)*; [39°21' N, 9°23' W], July 1882, *Zugte d'O. Simões, J.M. s.n. (PO!)*; [39°21' N, 9°23' W], July 1882, *Simões, J.M.Z. s.n. (COI!)*; [39°25' N, 9°30' W], July 1882, *Daveau, J. 1025 (COI,G!)*; [38°26' N, 9°06' W], May 1882, *Moller, A. s.n. (COI!)*; Ilhas Berlenga e Farilhões, [39°25' N, 9°30' W], May 1883, *Daveau, J. 54 (COI!)*; Berlenga, [39°25' N, 9°30' W], June 1883, *Daveau, J. 1194 (BM!)*; [39°25' N, 9°30' W], May 1883, *Daveau, J. 55 (COI!)*; [38°26' N, 9°06' W], March 1884, *Daveau, J. s.n. (COI!)*; Sesimbra, [38°27' N, 9°07' W], April 1887, *Moller, A. s.n. (COI,G!)*; [38°46' N, 9°10' W], May 1888, *Sophia, D. s.n. (COI!)*; [39°26' N, 9°13' W], September 1889, *Cunha, A.R. s.n. (COI!)*; [39°11' N, 9°03' W], June 1892, *Moller, A. s.n. (COI!)*; Sintra, Praia das Maçãs, [38°49' N, 9°28' W], 14 May 1908, *IPSE s.n. (BM!)*; [39°25' N, 9°30' W], 26 June 1924, *unclear s.n. (COI!)*; in aridis, solo granítico, Berlenga insula, [39°25' N, 9°30' W], 26 June 1924, *Mendonça 2064 (GDA!)*; Serra da Arrábida, rochedos do Solitário, [38°30' N, 9°00' W], 20 March 1938, *Gomes Pedro, J. s.n. (LISI!)*; Cintra, in rupestribus graniticis inter Azoia et Cabo da Roca, 75 m, [38°47'30" N, 9°25'00" W], 10 June 1938, *Rothmaler, W. 13538 (COI,G!)*; 15 m, [38°31' N, 9°10' W], 31 May 1938, *Rothmaler, W. 13441 (COI!)*; Cascais, 50 m, [38°42' N, 9°25' W], 3 May 1938, *Rothmaler, W. 13006 (COI,G!)*; Ericeira, 40 m, [38°59' N, 9°25' W], May 1941, *Carvalho, J.M.;Flores, F.M. 846 17 (LISI!)*; Cascais, Oitavos, 40 m, [38°42' N, 9°28' W], April 1941, *Carvalho, J.M.;Flores, F.M. 216 6 (LISI!)*; Nazaré, [39°36' N, 9°04' W], 4 June 1944, *Rozeira, A.;Castro, J. s.n. (PO!)*; Caldas da Rainha, Foz do Arelho, [39°26' N, 9°13' W], 23 May 1949, *Branquet, B.;et al. 3237 (PO,ELVE!)*; Serra d'Arrábida, [38°30' N, 9°00' W], 2 April 1951, *Webb, D.A. s.n. (K!)*; [39°36' N, 9°04' W], 25 July 1952, *Fernandes, A.;Fernandes, R.; Sousa, F. 4234 (COI!)*; Lisboa, Campolide, junto ao aqueduto das Águas Livres, [38°43' N, 9°10' W], 19 December 1952, *Silva, M. 1437 (RAB!)*; Praia das Maçãs, [38°49' N, 9°28' W], 9 September 1954, *Vasconcelos, J. 5461 (LISI!)*; Portinho da Arrábida, [38°29' N, 8°59' W], 9 April 1954, *unclear s.n.*

(GDA!); Sines, Morgavel, [37°57' N, 8°52' W], June 1956, *Lobo de Vasconcelos, A. s.n.* (LISI!); Serra da Arrábida, [38°30' N, 9°00' W], 7 April 1957, *Malato-Beliz, J.V.C.; Guerra, J.A. 3740* (ELVE,MA!); Setúbal, Serra da Arrábida, estrada para o Portinho, [38°28' N, 9°00' W], 2 September 1958, *Koepf, K.; Costa, G. s.n.* (PO!); Nazaré, [39°36' N, 9°04' W], 1 September 1958, *Koepf, K.; Costa, G. s.n.* (PO!); Nazaré, 2,2 km a S, 10 m, [39°36' N, 9°04' W], 26 May 1959, *Vasconcelos, J.; Franco, J.A. 59131* (LISI!); Cascais, Oitavos, [38°42' N, 9°28' W], 30 April 1960, *Vasconcelos, J. 60015* (LISI!); Cacém, [38°46' N, 9°18' W], 8 April 1960, *Fernandes, A.; Fernandes, R.; Matos, J. 7216* (RAB,COI,SANT!); [38°30' N, 9°00' W], 16 April 1961, *Fernandes, A.; Paiva, J.; Matos, J. 7842* (COI!); Lourinhã, [39°14' N, 9°19' W], 4 September 1961, *Rainha, B. s.n.* (BC!); Sesimbra, Monte do Castelo, [38°26' N, 9°06' W], 27 April 1962, *Rozeira, A.; Koepf, K.; Costa, G. s.n.* (PO!); Peniche, Cabo Carvoeiro, [39°21' N, 9°24' W], 28 April 1962, *Rozeira, A.; Koepf, K.; Costa, G. s.n.* (PO!); [39°21' N, 9°24' W], 28 April 1962, *Rozeira, A.; Koepf, K.; Costa, G. s.n.* (PO!); Serra da Arrábida, estrada para Azeitão, ao km 14, [38°28' N, 9°00' W], 27 April 1962, *Rozeira, A.; Koepf, K.; Costa, G. s.n.* (PO!); Ilhas das Berlengas, Berlenga Grande, [39°24' N, 9°31' W], 13 September 1964, *Fonseca, M.M. s.n.* (LISI!); Serra da Arrábida, [38°30' N, 9°00' W], 24 May 1964, *Fernandes, A.; Fernandes, R.; Pereira, A. 9124* (COI,MAF,SANT!); Praia da Adraga, [38°48' N, 9°29' W], 12 December 1966, *Martins, J. 46* (MA!); Ericeira, arribas ao Norte da Ericeira, [38°59' N, 9°25' W], 15 November 1966, *Pereira, V.; Reis 39* (BR!); Santiago do Cacém, Lagoa de Santo André, [38°06' N, 8°48' W], 18 April 1968, *Franco, J.A. 3557* (LISI!); Porto de abrigo de Sesimbra, [38°27' N, 9°07' W], 17 April 1968, *Galiano, E.F.; et al. 5447* (SEV!); Serra da Arrábida, [38°30' N, 9°00' W], 6 April 1968, *Polunin, O. 9006* (SEV!); Sesimbra, Porto de Abrigo, [38°27' N, 9°07' W], 17 April 1968, *Malato-Beliz, J.V.C.; et al. 5447* (ELVE,MA!); Playa de Sines, [37°57' N, 8°52' W], 18 April 1968, *Bellot, F.; Casaseca, B. s.n.* (MA,MACB,MACB!); [38°23' N, 8°47' W], 23 February 1968, *Fernandes, A.; Paiva, J.; Matos, J. 10087* (COI!); Cabo Espichel, [38°25' N, 9°13' W], 29 September 1968, *Kaae, N. s.n.* (C!); [38°25' N, 9°13' W], 29 September 1968, *Kaae, N. 2* (C!); Sesimbra, lanz strandvej, [38°27' N, 9°07' W], 30 April 1969, *Kaae, N. s.n.* (C!); Sesimbra, strandvej, [38°27' N, 9°07' W], 30 April 1969, *Kaae, N. s.n.* (C!); São Martinho do Porto, [39°31' N, 9°08' W], 5 April 1970, *Galiano, E.F.; Dominguez, E. s.n.* (SEV!); Sintra, Praia Grande, [38°49' N, 9°29' W], 18 July 1971, *Vasconcelos, J. 71085* (LISI!); Torres Vedras, Praia de Santa Cruz, [38°49' N, 9°18' W], 11 July 1971, *Vasconcelos, J. 71011* (LISI!); Sesimbra, Cabo

Espichel, junto à ermida de N. S.^a do Cabo, [38°25' N, 9°13' W], 1 June 1971, *Malato-Beliz, J.V.C.; Guerra, J.A. 10610* (ELVE,MA!); Península de Tróia, próximo da Malha da Costa, [38°23' N, 8°47' W], 27 June 1971, *Malato-Beliz, J.V.C.; et al. 11223* (ELVE,MA!); Cabo da Roca, [38°47' N, 9°30' W], 27 August 1971, *Rozeira, A.; Barreto, D.; Araújo, J. s.n.* (PO!); [39°12' N, 9°04' W], 12 July 1973, *Fernandes, A.; Fernandes, R.; Matos, J.; Alves, M. 12691* (COI!); São Martinho do Porto, [39°31' N, 9°08' W], 12 December 1974, *Malato-Beliz, J.V.C.; Guerra, J.A. 12454* (ELVE,MA!); Cabo Carvoeiro, [39°21' N, 9°24' W], 13 December 1974, *Malato-Beliz, J.V.C.; Guerra, J.A. 12484* (ELVE,MA!); Nazaré, [39°35' N, 9°10' W], 8 July 1974, *Leadlay, E.A.; Petty, B. 268* (BM,RNG,C!); Sintra, Cabo da Roca, [38°47' N, 9°30' W], 4 June 1975, *Baeta Neves, C.M. s.n.* (LISI!); Setúbal, Serra de Arrábida, [38°30' N, 9°00' W], 4 May 1975, *Valdés, E. s.n.* (MA!); Sesimbra, Castelo, Cabo Espichel, [38°25' N, 9°13' W], 13 April 1977, *Gomes Pedro, J.; Silva, M. 22060* (LISI!); Serra da Arrábida, Mata do Solitário, [38°30' N, 9°00' W], 17 April 1978, *Galiano, E.F.; et al. 5472* (SEV!); S Martinho do Porto, [39°31' N, 9°08' W], 24 May 1978, *Talavera, S.; Devesa, J.; Pastor, J. s.n.* (SEV!); São Martinho do Porto, [39°31' N, 9°08' W], 24 May 1978, *Talavera, S.; Devesa, J.; Pastor, J. s.n.* (MA!); Ilha Berlenga, [39°25' N, 9°30' W], 14 June 1979, *Fernandes, J.D.; Vasconcelos, T. 395* (LISI!); Setúbal, Sines, entre S André e Sines, início da estrada secundária para Monte Velho, a partir da auto-estrada, [38°03' N, 8°45' W], 7 August 1979, *Grandvaux Barbosa, L.A. 13247* (SEV!); Laguna de Melides, [38°08' N, 8°47' W], 1 May 1980, *Amich, F.; Rico, E.; Sanchez, J. s.n.* (MACB,SALA!); Sines, próximo da Fortaleza do Pessegueiro, a Sul de Porto Covo, [37°50' N, 8°48' W], 16 April 1981, *Grandvaux Barbosa, L.A. 13626* (MA,RNG!); Peniche, São Pedro, Berlenga, Ilha Velha a SE do Mosteiro, [39°24' N, 9°31' W], 31 August 1983, *Gomes Pedro, J.; Costa, J.F. 24189* (LISI!); Sintra, S. João das Lampas, Magoito, Lomba dos Pianos, [38°52' N, 9°26' W], 27 August 1983, *Gomes Pedro, J.; Costa, J.F. 24140* (LISI!); Sesimbra, Portinho, [38°26' N, 9°06' W], 13 August 1988, *Moura, A.R. 3618* (MA,AVE!); Mafra, Carvoeira, Foz do Lizandro, [38°56' N, 9°24' W], 14 May 1989, *Matos, J.V. s.n.* (LISI!); Cabo Roca, [38°47' N, 9°30' W], 19 April 1995, *Izco, J.; San León, D.G.; Lonzán, R.J. 752* (SANT!); Peniche, Arquipélago das Berlengas, Ilha da Berlenga, [39°25' N, 9°30' W], 26 June 1996, *Costa, J.C.; Capelo, J.; Lousã, M. 122 02* (LISI!); Peniche, Arquipélago das Berlengas, Farilhão Grande, [39°28' N, 9°32' W], 26 June 1996, *Costa, J.C.; Capelo, J.; Lousã, M. 140 02* (LISI!); Peniche, Baleal, [39°21' N, 9°23' W], 5 August 2003, *Silveira, P. 2910* (AVE!); Peniche, península da vila do

Baleal, [39°22' N, 9°21' W], 20 September 2004, *S. Castro 6 in Silveira, P. 3075* (AVE!); Peniche, Península da Papua, [39°22' N, 9°23' W], 20 September 2004, *S. Castro 7 in Silveira, P. 3076* (AVE!); Sintra, Praia do Magoito, [38°51' N, 9°27' W], 21 September 2004, *S. Castro 8 in Silveira, P. 3077* (AVE!); Bruscos, lagoa de Santo André, 5 m, [38°07'20" N, 8°47'31" W], 8 December 2006, *Aedo, C. 13551* (MA!); Setúbal, Serra da Arrábida, junto à estrada na vertente imediatamente acima do Portinho da Arrábida, [38°29' N, 8°59' W], 9 April 2006, *Silveira, P. 2941* (AVE!); Peniche, Ilha Berlenga, [39°25' N, 9°30' W], 27 August 2007, *Silveira, P. 3027* (AVE!); Sintra, entre Almoçageme e Praia da Adraga, 18 m, [38°48'00" N, 9°29'04" W], 18 March 2008, *Silveira, P. 3019* (AVE!); Sintra, Praia Grande do Rodízio, junto às pegadas de Dinossáuros, 5 m, [38°49' N, 9°28' W], 7 May 2008, *Silveira, P. 3022* (AVE!); Sintra, Praia do Magoito, [38°51' N, 9°27' W], 7 May 2008, *Silveira, P. 3024 b* (AVE!); Sintra junto ao estacionamento perto do mar a N da Praia, 140 m, [38°52'02" N, 9°26'03" W], 25 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3238* (AVE!); Sintra, entre Praia do Magoito e Azenhas do Mar, 100 m, [38°50'39" N, 9°27'31" W], 25 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3239* (AVE!); Sintra, Praia Grande, 20 m, [38°48'41" N, 9°28'44" W], 25 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3240* (AVE!); Cascais, Praia do Guincho, 18 m, [38°43'36" N, 9°28'28" W], 26 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3242* (AVE!); Sesimbra, Cabo Espichel, 134 m, [38°25'16" N, 9°12'55" W], 26 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3246* (AVE!); Sesimbra a W da ETAR, 18 m, [38°26'04" N, 9°07'02" W], 26 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3248* (AVE!); Setúbal entre Portinho da Arrábida e Setúbal, 14 m, [38°29'06" N, 8°57'22" W], 27 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3249* (AVE!);

subsp. *greuteri* Ohle (1974: 269)

Additional specimens examined: SPAIN. **Almeria:** Almeria, [36°50' N, 2°27' W], *Gredilla s.n.* (MA!); Sommet de la Sierra de Gador, [36°54' N, 2°47' W], 2 May 1851, *Bourgeau, E. 1240* (K, G!); W of Adra, off N. 340 on road to La Parra, [36°44' N, 3°01' W], 13 April 1973, *Leadlay, E.A.; Smith, V.A.W.; Petty, B.; Sutton, C.J. 129* (BM, RNG!); Rodalquilar, [36°50' N, 2°27' W], April 1973, *Fernández Casas, J. s.n.* (MA!); Minas de Rodalquilar, [36°50' N, 2°27' W], 11 April 1973, *Ladero, M.; Fuertes, E. s.n.* (GDA, MAF!); Cabo de Gata, [36°43' N, 2°12' W], April 1973, *Varo, J. s.n.* (GDA!); Adra road to La Parra, [36°44' N, 3°01' W], 25 May 1977, *Holmdahl, S. s.n.* (MGC!); Berja,

Barranco del Cortijo Torres, 600 m, [36°51' N, 2°57' W], 3 July 1982, *Segura Zubizarreta, A.* 23647 (MA!); Rodalquilar, [36°50' N, 2°27' W], 17 March 1985, *Mateo, G.; Figueirola, R.; Mateo, I. s.n.* (MA!); Vicar, Barranco El Tartel, 900 m, [36°50' N, 2°38' W], 12 April 1990, *Pallarés, A. s.n.* (MA!); Adra, La Parra, 600 m, [36°44' N, 3°01' W], 17 March 1990, *Martínez, M.J.; Guíterrez, L. s.n.* (GDA!); entre El Ejido e Dalías, 277 m, [36°47'43" N, 2°51'56" W], 25 March 2012, *Silveira, P.; Gonçalves, A.C.R.S.* 3196 (AVE!); entre El Ejido e Dalías, 360 m mais a SE do nº 3196, 312 m, [36°47'38" N, 2°51'43" W], 25 March 2012, *Silveira, P.; Gonçalves, A.C.R.S.* 3197 (AVE!); Nijar 100 m, [36°50'48" N, 2°02'59" W], 3 April 2012, *Silveira, P.; Gonçalves, A.C.R.S.* 3216 (AVE!); **Granada:** Almuñecar, [36°43' N, 3°41' W], *Carbonell, J.B. s.n.* (MA!); in montosis Reg. Granat., 300--914 m, [37°11' N, 3°36' W], May 1837, *Boissier, P.E. s.n.* (K,BM,G!); Málaga, Sierra de Marchamonas, Alfarate, [36°58' N, 4°08' W], 20 May 1931, *Vicioso, C. s.n.* (MA!); Almuñecar, [36°43' N, 3°41' W], May 1964, *Borja, J. s.n.* (MAF!); Cañon del Guadalfeo, 70 m 5 May 1965, *Greuter, W. S 7133* (K!); La Herradura, [36°44' N, 3°44' W], 23 July 1967, *Segura Zubizarreta, A.* 10478 (MA!); entre Velez de Benaudalla y Salobreña, [36°50' N, 3°31' W], 27 November 1971, *Fernández Casas, J. s.n.* (MA!); Cañon del Guadalfeo, [36°43' N, 3°35' W], December 1971, *Fernández Casas, J. s.n.* (MA!); [36°43' N, 3°35' W], December 1971, *Fernández Casas, J. s.n.* (MA, MAF!); Velez de Benaudalla, Azud de Velez, [36°50' N, 3°31' W], 26 February 1972, *Fernández Casas, J. s.n.* (MA!); Almuñecar, pr. oppidulum La Herradura, loco dicto Cerro Gordo, 20 m, [36°44' N, 3°44' W], 11 March 1972, *Fernández Casas, J. s.n.* (SEV, COI, MA!); Almuñecar, pr. oppidulum La Herradura, loco dicto Cerro Gordo, 20 m, [36°43' N, 3°41' W], 11 March 1972, *Fernández Casas, J. s.n.* (RNG,BCN,C,G!); Almuñecar, Mirador de Cerro Gordo, [36°44' N, 3°44' W], 19 April 1974, *Talavera, S.; Valdés, B.* 1485 74 (SEV!); Plage du Cerro Gordo région d'Almuñecar, Costa del Sol, [36°43' N, 3°41' W], 15 April 1974, *Sotiaux, P. s.n.* (BR!); Itrabo, en los montes situados encima de la ciudad, [36°48' N, 3°38' W], March 1977, *Martínez Parras, J.M. s.n.* (GDA!); Itrabo, Inter pagum et fonten "Nascimento", [36°48' N, 3°38' W], 29 March 1978, *Burton, R.M. s.n.* (SEV!); Velez Benaudalla, proximidades del Azud, [36°50' N, 3°31' W], 19 February 1980, *Ladero, M.; Hurtado, J. s.n.* (SEV,MA,SALA,GDA!); Azud de Velez, Velez de Benaudalle, [36°50' N, 3°31' W], February 1980, *Morales, C.; Blanca, C.; Romero, A. s.n.* (GDA!); Guajar-Faraguit, La Bernardilla, [36°51' N, 3°35' W], 28 January 1980, *Ladero, M.; Socorro, O.; Parras, M.; Molero, J.; Raya, P. s.n.* (GDA!); Motril, 150 m, [36°45' N, 3°31' W], 16 March 1985,

Mateo, G.; Figueirola, R.; Lázaro, R. s.n. (MA!); Almuñecar, Cerro Gordo, [36°43' N, 3°41' W], 13 February 1985, *Castellon, C.M. s.n.* (GDA!); Motril, Cortijo Cueva de las Palomas, pr. a la Gorgoracha, 240–300 m, [36°45' N, 3°31' W], 24 January 1987, *Socorro, O. s.n.* (GDA!); Sierra Nevada, Las Alpujarras, 3 km below Pampaneira on road to Lanjarón, 950 m, [36°50' N, 3°15' W], 26 February 1992, *Jury, S.L.; Ross, J.D.; Sombrero, C. 10422* (BM, RNG, MA!); Almuñecar, bajada desde la carretera antigua de pasado La Herradura, a la Playa de Cantarrijan, [36°43' N, 3°41' W], 24 February 2000, *Quesada, C.; et al. s.n.* (GDA!); La Herradura, Cerro Gordo, 247 m, [36°44'12" N, 3°46'03" W], 3 April 2007, *Silveira, P.; Carqueja MJM 2983* (AVE!); entre Salobreña e Velez de Benadalla, no início do canhão do Rio Guadalfeo, 58 m, [36°47'28" N, 3°32'23" W], 22 June 2009, *Silveira, P. 3046* (AVE!); a 3–4 km de Pampaneira, ao descer para àrgiva, 930 m, [36°55'34" N, 3°22'42" W], 22 June 2009, *Silveira, P. 3047* (AVE!); entre Salobreña e Velez de Benaudalla, 160 m, [36°47'27" N, 3°32'23" W], 7 March 2010, *Nora, S.V. in Silveira, P. 3172* (AVE!); Vicar base da Serra de Gador, 365 m, [36°49'20" N, 2°43'11" W], 25 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3195* (AVE!); Cañon del Rio Guadalfeo, entre Salobreña e Velez de Benaudalla, 160 m, [36°47'27" N, 3°32'23" W], 26 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3200* (AVE!); Pampaneira, a 3–4 km de Pampaneira, ao descer para Órgiva, 930 m, [36°55'34" N, 3°22'42" W], 26 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3201* (AVE!); Cerro Gordo, 224 m, [36°44'12" N, 3°46'02" W], 4 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3218* (AVE!); 500 m a E-NE de Torre del Pino, na arriba e margens da N340, 127 m, [36°44'53" N, 3°47'33" W], 4 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3219* (AVE!); **Málaga:** pr. Málaga et Sierra de Mijas, 1000 m, [36°37' N, 4°39' W], 13 May 1879, *Porta, P.; Rigo, G. 226* (K, G!); Prov. Malacitana, supra Alora, 300–400 m, [36°48' N, 4°42' W], 18 June 1895, *Porta, P.; Rigo, G. 297* (K!); Guadalmedina, [36°42' N, 4°25' W], 21 March 1912, *Beltran, J. s.n.* (MA!); Málaga, [36°43' N, 4°25' W], April 1919, *Beltran, J. s.n.* (MA!); De Maro aereo Riscate, [36°45' N, 3°50' W], 24 April 1919, *Pau, C. s.n.* (BC!); Sierra Bermeja de Mijas, [36°37' N, 4°39' W], 4 May 1931, *Vicioso, C. s.n.* (MA!); Málaga, Sierra Parda-Tolox, [36°42' N, 5°00' W], 14 June 1932, *unclear s.n.* (MA!); Sierra Crestellina, Casares, [36°27' N, 5°17' W], 15 May 1932, *Vicioso, C. s.n.* (MA!); Rio de la Miel, [36°07' N, 5°26' W], 26 May 1935, *Modesto Laza s.n.* (MA, MAF!); Nerja, [36°44' N, 3°52' W], May 1964, *Delvosalle, L. s.n.* (BR!); Pinar de las chapas, Marbella, [36°31' N, 4°53' W], July 1968, *Varo, J.; Zafra, M.L. s.n.* (GDA!); Benahavis road, [36°31' N, 5°03' W], 1 April 1969, *Brinton-Lee, D. s.n.* (SEV!); Alora, Sierra,

400 m, [36°48' N, 4°42' W], 14 April 1969, *Gibbs, P.E.; Silvestre, S.; Valdés, B. 1122 69* (SEV, BM!); Benahavis, 300 m, [36°31' N, 5°03' W], 1 April 1969, *Brinton-Lee, D. 1235* (BM!); 3–4 km Northwards from main road, on way to Benahavis, [36°31' N, 5°03' W], 16 April 1969, *Carr, J.W. 124* (RNG!); Málaga, Pizzara, base de la Sierra, *Borja, J. s.n.* (MAF!); Tolox, Sierra de Tolox, 700–800 m, [36°42' N, 5°00' W], 4 July 1973, *Cabezudo, B.; Valdés, B. s.n.* (SEV!); Sierra Parda de Tolox, 800–850 m, [36°42' N, 5°00' W], 18 April 1973, *Talavera, S.; Valdés, B. 859 73* (SEV, MA!); 800 m, [36°42' N, 5°00' W], 18 April 1973, *Talavera, S.; Valdés, B. s.n.* (SEV!); Tolox, Sierra de Tolox, 700–800 m, [36°42' N, 5°00' W], 4 July 1973, *Cabezudo, B.; Valdés, B. s.n.* (SEV, MA!); Alora, en la salida hacia Carratraca, [36°48' N, 4°42' W], 6 May 1973, *López, G. 1443 GF* (MA!); salida de Alora para Carratraca, *Valdés, E. s.n.* (MAF!); Benahavis, cerca del pueblo, base de la Sierra Bermeja, 180 m, [36°31' N, 5°03' W], 18 April 1974, *Talavera, S.; Valdés, B. 1313 74* (SEV, RNG, MA!); Casares, 500 m, [36°27' N, 5°17' W], 17 April 1974, *Talavera, S.; Valdés, B. 1302 74* (SEV, RNG!); Playa de Chullera, Manilva, [36°23' N, 5°15' W], 7 April 1976, *Asensi, A.; Diez Garretas, B. s.n.* (MGC!); Playa de Manilva, [36°23' N, 5°15' W], 6 January 1977, *Asensi, A.; Diez Garretas, B. s.n.* (GDA!); Playas de Manilva, [36°23' N, 5°15' W], 6 January 1977, *Asensi, A.; Diez Garretas, B. s.n.* (MGC!); Montes de Nerja, [36°44' N, 3°52' W], 17 March 1979, *Diez Garretas, B.; Conde, F. s.n.* (MA!); Málaga, Montes de Nerja, [36°44' N, 3°52' W], 17 March 1979, *Asensi, A.; Guerra, J.; Conde, F. s.n.* (MA!); Montes de Nerja VF26, [36°44' N, 3°52' W], 17 March 1979, *Diez Garretas, B. s.n.* (MGC!); Sierra Tejeda, 900 m, [36°54' N, 4°04' W], 1 June 1982, *Nieto, J.M.; Cabezudo, B. s.n.* (MGC!); Nerja, cercanías de las Cuevas de Nerja en Maro, [36°45' N, 3°50' W], 17 April 1984, *Fernández Alonso, J.L.; Guillén, A.; et al. s.n.* (MA!); Málaga, Nerja, cercanías de las "Cuevas de Nerja", en Maro, [36°45' N, 3°50' W], 17 April 1984, *Fernández Alonso, J.L.; Guillén, A.; et al. s.n.* (MA!); Sierra de Mijas, Pico de Mijas, Cabezo de las Cruces, 1100 m, [36°37' N, 4°39' W], 5 June 1985, *Cabezudo, B.; Perez, S. 16088* (SEV!); Sierra de Mijas, Pico de Mijas, Cabezo de las Cruces, 1100 m, [36°37' N, 4°39' W], 5 June 1985, *Cabezudo, B.; Perez, S. s.n.* (MGC!); Estepona, Sierra de Bermeja, [36°40' N, 4°45' W], 22 March 1987, *Gil, Y.; Navas, P. s.n.* (MGC!); Coin, Albequeira, [36°40' N, 4°45' W], 22 March 1987, *Cano, E.; Hevilla, S. s.n.* (MGC!); Alora, Hacho de Alora, [36°48' N, 4°42' W], 6 January 1989, *Bootello, M.J. s.n.* (MGC!); La Mediatude, Hacho de Alora, [36°48' N, 4°42' W], 6 January 1989, *Botelho Bravo, L. s.n.* (MGC!); Almogía, Carril hacia Campanillas, [36°26' N, 5°08' W], 10 December 1992, *Perez-Latorre, A.V.; Caballero, G.; Soriguer,*

F. s.n. (MGC!); Estepona, Sierra Bermeja, Tinao de las Minas, 180 m, [36°26' N, 5°08' W], 10 April 1993, *Navas, P.*; *Nieto, J.M. s.n.* (MGC!); Estepona, Sierra Bermeja, 200 m, [36°26' N, 5°08' W], 20 January 1993, *Navas, P.*; *Navas, D. s.n.* (MGC!); Benarraba, Soto fe la Panala, [36°33' N, 5°16' W], 24 February 2001, *Gavira, O. s.n.* (MGC!); Casares, Sierra Crestellina, 850 m, [36°28' N, 5°16' W], 11 July 2004, *Gavira, O. s.n.* (MGC!); Riogordo/Alfarnatejo. Altos del Fraile, Gomer y Dona Ana, 100 m, [36°55' N, 4°18' W], 9 April 2006, *Perez-Latorre, A.V.*; *Gavira, O.*; *Cabezudo, B. s.n.* (MGC!); Pizarra, Hacho de Pizarra Norte, Los Castillejos, 300–350 m, [37°40' N, 1°05' W], 20 April 2006, *Perez-Latorre, A.V.*; *Cabezudo, B.*; *Gavira, O. s.n.* (MGC!); Pizarra. Hacho de Pizzara, Zona SO, 200–250 m, [36°45' N, 4°42' W], 20 April 2006, *Perez-Latorre, A.V.*; *Cabezudo, B.*; *Gavira, O. s.n.* (MGC!); Alora, Hacho de Alora, cara norte, 370 m, [36°48' N, 4°42' W], 24 April 2008, *Cabezudo, B.*; *Perez-Latorre, A.V.*; *Soriguer, F. s.n.* (MGC!); Mijas Costa, berma da estrada N340, do lado da Praia, 3 m, [36°30'41" N, 4°38'08" W], 21 October 2008, *Nora S in Silveira, P. 3034* (AVE!); Mijas Costa, berma da estrada N340, 3 m, [36°30'41" N, 4°38'08" W], 21 October 2008, *Nora S in Silveira, P. 3035* (AVE!); Coin, Barranco Blanco, [36°40' N, 4°45' W], 30 April 2009, *Cabezudo, B.*; *Soriguer, F. s.n.* (MGC!); Coin, Sierra Alpujata, Cabecera Rio Pereira, 580 m, [36°36' N, 4°48' W], 13 May 2009, *Cabezudo, B.*; *Perez-Latorre, A.V.*; *Soriguer, F. s.n.* (MGC!); Casarabonela, La Robla, Ladera Este, [36°47' N, 4°51' W], 16 April 2009, *Cabezudo, B.*; *Perez-Latorre, A.V.*; *Soriguer, F. s.n.* (MGC!); Igualeja, Cerro Cascajares, 1360 m, [36°38' N, 5°07' W], 29 May 2010, *Gavira, O. s.n.* (MGC!); Genalguacil, Garganta del Algarrobo, 460 m, [36°33' N, 5°14' W], 12 June 2010, *Gavira, O. s.n.* (MGC!); Rio Gordo, Sierra de Camarolos, vertiente sur, 1400 m, [36°58' N, 4°20' W], 25 February 2011, *Soriguer, F. s.n.* (MGC!); Benahavis, à saída da povoação para North pelo Camino de la Molinilla, 162 m, [36°31'42" N, 5°02'47" W], 24 March 2012, *Silveira, P.*; *Gonçalves, A.C.R.S. 3190 a* (AVE!); Alora, na saída para Carratraca, 254 m, [36°50'07" N, 4°42'42" W], 27 March 2012, *Silveira, P.*; *Gonçalves, A.C.R.S. 3203* (AVE!); Maro, na Praia, 2 m, [36°45' N, 3°50' W], 4 April 2012, *Silveira, P.*; *Gonçalves, A.C.R.S. 3220* (AVE!); Tolox, acima do balneário, na saída para a Serra, 220 m, [36°40'41" N, 4°54'34" W], 4 April 2012, *Silveira, P.*; *Gonçalves, A.C.R.S. 3221* (AVE!);

subsp. *lusitanica* (Boiss.) Ohle (1974: 270)

Additional specimens examined: PORTUGAL. **Algarve:** entre Portimão e Caldas de Monchique, [37°19' N, 8°33' W], *unclear s.n.* (BM!); Caldas de Monchique, [37°19' N, 8°33' W], 3 April 1964, *Rozeira, A.; Koepp, K.; Costa, G. s.n.* (PO!); [37°15' N, 8°05' W], 21 March 1967, *Paiva, J. 166* (COI!); S of Monchique, [37°19' N, 8°33' W], 9 April 1967, *Wadsworth, R. M.; Watson, E.V. s.n.* (RNG!); Serra de Monchique, próximo de Alferce, [37°20' N, 8°29' W], 26 October 1978, *Malato-Beliz, J.V.C.; Guerra, J.A. 15105* (ELVE, MA!); [37°19' N, 8°36' W], 26 October 1978, *Malato-Beliz, J.V.C.; Guerra, J.A. 15106* (C!); entre Monchique e Alferce, [37°19' N, 8°33' W], 17 December 1980, *Varo, J.; Socorro, O.; Zafra, M.L.; Casares, M.; Gil, J.; Salvo, E.; Guerra, J. s.n.* (GDA!); [37°19' N, 8°33' W], 17 December 1980, *Varo, J.; Socorro, O.; Zafra, M.L.; Casares, M.; Gil, J.; Salvo, E.; Guerra, J. s.n.* (GDA!); Serra de Monchique a unos 8 km al sur de la población, [37°19' N, 8°36' W], 16 April 1981, *Romero, C. 30 81* (SEV!); Picota, [37°18' N, 8°32' W], 11 April 1993, *Thornberg, M. s.n.* (C!); Caldas de Monchique, entre Monchique y Portimão, 265 m, [37°19' N, 8°33' W], 29 May 1996, *Castroviejo, S.; Carrasco, M.A.; Velayos, M. 13759 SC* (MA!); Serra de Monchique, próximo de Monchique, 320 m, [37°19' N, 8°33' W], 8 June 2001, *Medina, L.; Nisa, S.; Pardo de Santayana, M. LM 2262* (MA, MACB!); Monchique, Serra de Monchique, Fóia, [37°19' N, 8°36' W], 12 April 2006, *Silveira, P. 2942* (AVE!); Monchique, Serra de Monchique, ao descer de Fóia, junto ao miradouro, [37°19' N, 8°36' W], 12 April 2006, *Silveira, P. 2944* (AVE!); Portimão, Praia da Rocha, [37°08' N, 8°32' W], 12 April 2006, *Silveira, P. 2945* (AVE!); Monchique, Fóia, 915 m, [37°18'58" N, 8°36'09" W], 27 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3250* (AVE!); Monchique, Serra de Monchique, 773 m, [37°18'27" N, 8°36'20" W], 27 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3251* (AVE!); Monchique na intersecção da N266 com a ligação às Caldas de Monchique, 256 m, [37°17'05" N, 8°33'13" W], 27 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3252* (AVE!); **Estremadura:** Sesimbra, [38°27' N, 9°07' W], *unclear s.n.* (C!); Serra de Cintra, *unclear 369* (G!); Cintra, *Chodat, R. s.n.* (G!); in Serra de Monsanto prope Sintra, *Boissier, P.E. 172* (G!); prope Cintra, [38°48' N, 9°23' W], April 1825, *Shuttleworth, R.J. s.n.* (BM!); *Guthnick s.n.* (G!); Sintra, [38°48' N, 9°23' W], 14 October 1850, *unclear 14* (K!); Lusitaniae província Estremadura juxta Cintra, [38°48' N, 9°23' W], 14 October 1850, *Ball, J. s.n.* (K!); Cintra, [38°48' N, 9°23' W], 8 May 1876, *Winkler, M. s.n.* (K!); [38°48' N, 9°23' W], 8 May 1876, *Winkler, M. s.n.* (K!); Lisbon,

[38°43' N, 9°08' W], August 1876, *Trevelyan, W.C. s.n.* (K!); Cintra, [38°48' N, 9°23' W], 8 May 1876, *Winkler, M. s.n.* (C!); Serra de Monsanto, [38°44' N, 9°11' W], March 1879, *Daveau, J. s.n.* (K!); prope Cintra, [38°48' N, 9°23' W], April 1879, *Ball, J. s.n.* (K!); Serra de Monsanto, [38°44' N, 9°11' W], April 1880, *Moller, A. s.n.* (COI!); [38°44' N, 9°11' W], April 1880, *Moller, A. 26* (C!); Arruda, [38°59' N, 9°05' W], March 1881, *Daveau, J. s.n.* (PO!); arredores de Lisboa, Benfica, [39°05' N, 9°19' W], October 1883, *Simões, Z. s.n.* (COI!); [38°42' N, 9°10' W], April 1883, *Coutinho, A.X.P. s.n. C* (COI!); rampa du Plage pré Almada, [38°41' N, 9°09' W], April 1883, *Daveau, J. 979* (COI,G!); Almada, Fonte da Pipa, [38°41' N, 9°09' W], April 1883, *Daveau, J. 1192* (BM!); [38°48' N, 9°23' W], April 1884, *Moller, A. s.n.* (COI!); Serra de Monsanto, [38°44' N, 9°11' W], 1885, *Daveau, J. 879* (MA,BR,G!); Serra de Cintra (localité classique), [38°47'30" N, 9°25'00" W], March 1885, *Daveau, J. 1213* (MA!); Sesimbra (Cezimbra), [38°26' N, 9°06' W], April 1887, *Moller, A. 276* (BM,COI!); Cintra, [38°48' N, 9°23' W], April 1887, *Moller, A. s.n.* (MA!); Almoçageme, próximo Collares, [38°48' N, 9°27' W], June 1888, *Daveau, J. 1193* (BM!); Serra de Monsanto, [38°44' N, 9°11' W], December 1891, *Lange, J. 172* (C!); [38°48' N, 9°23' W], April 1905, *Coutinho, A.X.P. s.n.* (COI!); Sintra, [38°48' N, 9°23' W], April 1905, *Coutinho, A.X.P. s.n.* (PO, COI!); Serra de Monsanto, [38°44' N, 9°11' W], May 1906, *Jorge, R. s.n.* (PO!); Cintra, [38°48' N, 9°23' W], 15 April 1921, *Rahn, K. 435* (C!); São Martinho do Porto [39°31' N, 9°08' W], 24 April 1931, *Mendonça; Sousa, F. s.n.* (COI!); Nazaré [39°36' N, 9°04' W], 23 April 1931, *Costa, A. s.n.* (COI!); Foz do Arelho [39°26' N, 9°13' W], 1 May 1935, *Mendonça; Sousa, F. 2974* (COI!); Foz do Arelho 10 m, [39°26' N, 9°13' W], 20 June 1938, *Rothmaler, W. 13810* (COI,G!); Almada (arredores), Palença, Outeiro dos Africanos, [38°41' N, 9°09' W], November 1939, *Gomes Pedro, J. s.n.* (LISI!); próximo Barcarena, [38°44' N, 9°17' W], 9 March 1941, *Nupe, M. s.n.* (LISI!); Cascais, Malveira, Biscaia, Bons Dias, [38°46' N, 9°28' W], May 1943, *Carvalho, J.M.; Flores, F.M.; Vales, E. 3088* (LISI!); Nazaré, Rio Alcoa, [39°35' N, 9°05' W], 10 June 1944, *Rozeira, A.; Castro, J. s.n.* (PO!); Bombarral, próximo de Reguengo Grande, [39°16' N, 9°09' W], 3 May 1950, *Rainha, B. 1970* (SANT!); Montejunto, Pragança, nos taludes da estrada a caminho das Penhas do Meio Dia, 300 m, [39°11' N, 9°03' W], 27 March 1953, *Rainha, B. 2463* (COI, ELVE, MA, RAB!); Vimeiro, próximo de Maceira, 30 m, [39°11' N, 9°20' W], 28 April 1959, *Jacks, B.D. 4019* (ELVE, MA!); Vimeiro, [39°28' N, 9°01' W], 28 April 1959, *Rainha, B. s.n.* (MA!); Serra da Arrábida, na encosta por cima do Portinho da Arrábida, [38°29' N, 8°59' W], 24 April 1959, *Matos, J.; Cardoso, F. 6594* (MAF, COI, SANT!); Vimeiro, [39°11'

N, 9°19' W], 28 April 1959, *Rainha, B. 4019* (MACB, MA,G!); Sobral de Monte Agraço, 230 m, [39°01' N, 9°09' W], 25 March 1961, *Rainha, B. 4522* (SEV,MA!); Alcoentre [39°12' N, 8°57' W], 18 May 1962, *Paiva, J.; Matos, J.; Alves, M. 8505* (COI!); Pragança [39°12' N, 9°04' W], 1 April 1963, *Paiva, J.; Matos, J.; Marques, A. 8750* (COI!); Porto de Mós [39°36' N, 8°49' W], 22 April 1966, *Fernandes, A.; Fernandes, R.; Paiva, J. 9473* (COI!); Serra de Sintra, Seteais, [38°47'30" N, 9°25'00" W], 17 March 1967, *Sampaio, G. 1222* (COI!); Monsanto [38°44' N, 9°11' W], 25 July 1968, *Sampaio, G. 1764* (COI!); Serra de Monsanto, [38°44' N, 9°11' W], 27 May 1969, *Prov. J. Bot. Lisboa 2409* (COI!); próximo da Praia do Guincho, [39°07' N, 9°23' W], 30 August 1969, *Prov. J. Bot. Lisboa 2917* (COI!); Serra de Monsanto, [38°44' N, 9°11' W], 9 September 1970, *Prov. J. Bot. Lisboa 4144* (COI!); Almada, Caparica, Porto Brandão, encosta sobre o Rio Tejo, [38°40' N, 9°12' W], 12 April 1970, *Franco, J.A. 4167* (LISI,MA!); Sintra, Castelo dos Mouros, 450 m, [38°48' N, 9°23' W], 4 July 1974, *Leadlay, E.A.; Petty, B. 233* (BM,RNG!); Sintra, Castelo dos Mouros Mouros 450 m, [38°48' N, 9°23' W], 4 July 1974, *Leadlay, E.A.; Petty, B. s.n.* (C!); Serra de Montejunto, cast of mountain road from Qta da Serra to Pragança village, 300 m, [39°11' N, 9°03' W], 7 May 1976, *Gibby, M.; Jemy, A.C. 12628* (BM!); Grândola, Melides, Pinheiro da Cruz, Praia Medos a N da Praia, [38°37' N, 9°08' W], 7 May 1977, *Gomes Pedro, J. 22190* (LISI!); Porto de Mós, Alqueidão da Serra, Carreirinha, 350 m, [39°37' N, 8°46' W], 6 November 1980, *Lousã, M.; Espírito Santo, M.D.; Monjardino, J. 1042* (LISI!); Torres Vedras, S. Pedro da Cadeira Assente, C. do Facho, 50 m, [39°04' N, 9°22' W], 29 September 1980, *Saraiva, A. s.n.* (LISI!); Porto de Mós, Mira de Aire, Costa de Mira, junto às Ventas do Diabo, 500 m, [39°32' N, 8°43' W], 30 April 1980, *Lousã, M.; Espírito Santo, M.D.; Rosa, L. s.n.* (LISI!); Cadaval, Serra de Montejunto, junto ao miradouro, [39°11' N, 9°03' W], 20 February 1980, *Moreira, I.; Espírito Santo, M.D.; Rosa, L. s.n.* (LISI!); Sesimbra, Lagoa de Albufeira, [38°31' N, 9°10' W], 1 June 1988, *Moura, A.R. 3496* (MA,AVE!); 2 m, [39°31' N, 9°08' W], 27 March 1993, *Atkinson, R. RA 110* (COI!); Porto de Mós 490 m, [39°36' N, 8°49' W], 28 March 1993, *Atkinson, R. RA 123* (COI!); Setúbal, entre Cabo Espichel i Sesimbra, [38°25' N, 9°13' W], 2 October 1993, *Soriano, C.; Pereira, P.; et al. s.n.* (BCN!); Santarém, [39°31' N, 8°44' W], 19 June 1997, *NCRPIS (USDA) PI649652 in Silveira, P. 3228* (AVE!); Porto de Mós Porto de Mós, junto às grutas de Alvados, [39°33' N, 8°46' W], 8 April 2006, *Silveira, P. 2939* (AVE!); Sintra Serra de Sintra, margens do estradão que conduz ao interior da Serra entre Colares e Almoçageme, 375 m, [38°46'34" N, 9°27'23" W], 18 March 2008, *Silveira, P. 3015* (AVE!); Sintra, S. Pedro de Sintra, 375 m,

[38°47'35" N, 9°22'58" W], 18 March 2008, *Silveira, P. 3016* (AVE!); Sintra, Colares, junto ao cruzamento para Praia das Maçãs, num muro da Rua 1º de Maio, 19 m, [38°48'13" N, 9°27'03" W], 18 March 2008, *Silveira, P. 3017 a* (AVE!); Sintra, entre Sintra e Colares, à beira da estrada, 18 March 2008, *Silveira, P. 3017 b* (AVE!); Sintra, Fontanelas, 115 m, [38°51' N, 9°26' W], 7 May 2008, *Silveira, P. 3023* (AVE!); Cadaval Estremadura, Serra de Montejunto, junto à Ermida de Nossa Senhora das Neves, 644 m, [39°10'30" N, 9°03'35" W], 4 October 2008, *Silveira, P.; Nora, S. 3030* (AVE!); Pragança, limite da povoação ao subir para a Serra, 319 m, [39°11'48" N, 9°03'28" W], 4 October 2008, *Silveira, P.; Nora S 3031* (AVE!); Cadaval Pragança, à saída da povoação ao subir para a Serra, 326 m, [39°11'48" N, 9°03'28" W], 19 January 2011, *Silveira, P. 3180* (AVE!); Cadaval entre Pragança e o Miradouro, 367 m, [39°11'46" N, 9°03'27" W], 19 January 2011, *Silveira, P. 3182* (AVE!); Cadaval à junto à Igreja de Nossa Sr.^a das Neves, 649 m, [39°10'30" N, 9°03'34" W], 19 January 2011, *Silveira, P. 3183* (AVE!); Cadaval, na saída para Pragança, 196 m, [39°12'18" N, 9°03'29" W], 25 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3234* (AVE!); Cadaval, na saída para a Serra, 316 m, [39°11'48" N, 9°03'29" W], 25 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3235* (AVE!); Cadaval, a meio caminho para o cimo da Serra, 379 m, [39°11'36" N, 9°03'27" W], 25 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3236* (AVE!); Cadaval, junto à capela Nossa Sr.^a Neves, 661 m, [39°10'31" N, 9°03'36" W], 25 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3237* (AVE!); Sintra, 266 m, [38°47'39" N, 9°22'57" W], 26 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3241* (AVE!); Oeiras, 51 m, [38°43'43" N, 9°16'36" W], 26 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3243* (AVE!); Lisboa ao descer de Alvito para Alcântara, 50 m, [38°43'03" N, 9°10'48" W], 26 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3244* (AVE!); Almada, 15 m, [38°40'40" N, 9°12'19" W], 26 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3245* (AVE!); Sesimbra, junto ao Castelo, 155 m, [38°27'04" N, 9°06'32" W], 26 May 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3247* (AVE!);

C. tripterocarpa Ruprecht (1856: 231)

Additional specimens examined: SPAIN. **Alicante:** Castillo de Santa Barbara, [38°21' N, 0°29' W], 11 January 1997, *Camuñas, E.; Crespo, M.B. s.n.* (ABH, RNG!); **Almería:** Sierra del Cabo de Gata, [36°51' N, 2°06' W], *Fabregas, F.S. s.n.* (MACB!); Almería, 10–200 m, [36°50' N, 2°27' W], April 1890, *Porta, P.; Rigo, G. 225* (K!); entre Overa y

Vera, [37°23' N, 1°57' W], 12 January 1961, *Sagredo, H. s.n.* (MAF!); Cabo da Gata, [36°47' N, 2°14' W], 30 October 1966, *Galiano, E.F.; et al. s.n.* (SEV!); 4 km SW of Tabernas, Llanos de Rueda, [37°03' N, 2°23' W], 3 June 1967, *Ball, P.W.; Chater, A.O.; Ferguson, I.K.; Valdés, B. 1164* (SEV!); Huercal-Overa, [37°23' N, 1°57' W], 31 December 1972, *Cabezudo, B. 2277 72* (SEV!); Tabernas, [37°03' N, 2°23' W], 11 May 1975, *López, G.; Valdés Bermejo, E. s.n.* (MA!); entre Venta de los Yesos y Tabernas, [37°03' N, 2°23' W], 20 May 1976, *Cabezudo, B.; Talavera, S.; Valdés, B. 1001 76* (SEV!); entre El Alquian y Cabo de Gata, [36°50' N, 2°27' W], 25 March 1977, *Gallego, M.J.; García, F.; Ruíz de Clavijo, E.; Talavera, R. 326 77* (SEV!); Los Retamares, 30 m 50 m, [36°58' N, 3°52' W], 4 April 1981, *Hernández, A.M. s.n.* (MA!); Cuevas de las Medinas, [36°50' N, 2°27' W], 3 March 1983, *Mellado, J. s.n.* (SEV!); Tabernas, 400 m, [37°03' N, 2°23' W], 19 March 1984, *Mateo, G.; Lázaro, R. s.n.* (MA!); Pozo del Esparto, [37°20' N, 1°41' W], 12 March 1984, *Castroviejo, S.; Bayón, E.; Coello, P.; Galán, P.; López, G.; Nieto, G. 8949 SC* (MA!); San Juan de los Terreros, 20–30 m, [37°21'38" N, 1°39'38" W], 25 March 1986, *López, G. 9638* (MA!); Cabo de Gata, entre el pueblo y el Cabo, [36°47' N, 2°14' W], 6 January 1993, *Fernández Alonso, J.L.; Castillo, R. 10668* (MA!); Gergal, hacia Tabernas, 800 m, [37°07' N, 2°33' W], 11 April 1993, *Cristobal, J.C.; Gea, C. s.n.* (ABH!); Cabo de Gata, 1.5 km pasada la puerta entre el Faro y San José, Barranco del Bujo, 145 m, [36°47' N, 2°14' W], 29 April 1997, *Muñoz Garmendia, F.; et al. 3307 MG* (MA!); 145 m, [36°47' N, 2°14' W], 29 April 1997, *Muñoz Garmendia, F.; et al. 3283 MG* (MA!); Tabernas, Ramble del Cañuelo, 380 m, [37°03' N, 2°23' W], 16 April 1999, *Crespo, M.B.; Solana, J.L.; Barber, A.; Cristobal, J.C.; et al. s.n.* (ABH!); Tabernas, Las Noiras, 450 m, [37°03' N, 2°23' W], 14 March 1999, *Crespo, M.B.; Solana, J.L.; Barber, A.; Cristobal, J.C.; et al. s.n.* (ABH!); carretera a Aguilas, Playa despues de la isla de Terreros, [36°50' N, 2°27' W], 24 April 2004, *Gutierrez, M.; Okivarro, C. s.n.* (MAF!); Cuevas del Almazora, Guamazara, 161 m, [37°18' N, 1°53' W], 14 April 2005, *Crespo, M.B.; Solana, J.L.; Barber, A.; Cristobal, J.C.; et al. s.n.* (ABH!); entre Rambla de Morales e El Retamar, mais perto de El Retamar, junto ao leito do Rio µgua, 3 m, [36°47' N, 2°16' W], 2 April 2007, *Silveira, P.; Carqueja MJM 2981* (AVE!); a c. 4 km a SW de Tabernas, 346 m, [37°02'10" N, 2°25'06" W], 3 April 2007, *Silveira, P.; Carqueja MJM 2982* (AVE!); a c. 3 km a SW de Tabernas, 346 m, [37°02'10" N, 2°25'06" W], 30 March 2009, *Silveira, P. 2982 b* (AVE!); 346 m, [37°02'10" N, 2°25'06" W], 7 March 2010, *Nora, S.V. in Silveira, P. 3174* (AVE!); 44 m, [36°50'19" N, 2°17'35" W], 25 March 2012, *Silveira,*

P.; *Gonçalves, A.C.R.S. 3193* (AVE!); SPAIN. **Murcia**: Aguilas, Cabo Cope, [37°26' N, 1°29' W], 15 April 1984, *Molero, J.; Rovira, A. s.n.* (MA, BCN, MAF, G!); bermas da D-20, 338 m, [37°30'22" N, 1°27'41" W], 3 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3215* (AVE!);

C. arvensis Linnaeus (1763: 1303)

Additional specimens examined: SPAIN: **Albacete**: cerca de Tobarra, Finca Alboraj, [38°35' N, 1°41' W], 22 April 1991, *Herrero Nieto, A. s.n.* (MA!); Alcaraz, [38°40' N, 2°29' W], 6 June 1983, *Herranz, J.M. s.n.* (MA!); Ayna, [38°33' N, 2°05' W], 26 April 1986, *Herranz, J.M. s.n.* (MA!); Cancarix, 460 m, [38°25' N, 1°35' W], 3 April 1986, *Herranz, J.M. s.n.* (MA!); Tobarra, pr. km 293 de la carretera de Murcia, 680 m, [38°35' N, 1°41' W], 3 April 1986, *Herranz, J.M. s.n.* (MA!); Letur, 675 m, [38°22' N, 2°06' W], 25 April 1997, *Aedo, C.; et al. 1242 IA* (MA!); **Alicante**: Isla de Tabarca, 5 m, [38°10' N, 0°28' W], 29 April 2001, *Aedo, C. 6122* (MA!); Altea, S. Bèrnia, Barranc del Gort, 100 m, [38°36' N, 0°03' W], 14 January 1996, *Soler, M.R.; Soler, S. 15947* (MA!); Vall de Gallinera, Benisili, 600 m, [38°49' N, 0°16' W], 6 February 1996, *Soler, J.X.; Signes, M. 5225* (MA!); Vall d'Alcalá, Beniaya, 700 m, [38°46' N, 0°16' W], 4 March 1995, *Soler, J.X.; Signes, M. 1463* (MA!); Gata de Gorgos, ptda. Planises, 125 m, [38°46' N, 0°05' E], 13 December 1993, *Soler, J.X. 672* (MA,SALA,SANT!); Los Balsares de Altet, [38°21' N, 0°29' W], 5 February 1984, *Mateo, G. s.n.* (MA!); Fontilles, [38°47' N, 0°05' W], 4 December 1983, *Mateo, G.; Figueirola, R. s.n.* (MA!); Cabo Roig, Torrevieja, [37°59' N, 0°41' W], 18 February 1984, *Costa, M.; et al. s.n.* (MA!); Portichol, [38°45' N, 0°16' E], 5 May 1933, *Martínez, M. s.n.* (MA!); Huerta de Alicante, [38°21' N, 0°29' W], 3 May 1933, *Martínez, M. s.n.* (MA!); alrededores de Polop, [38°37' N, 0°07' W], 9 July 1933, *Martínez, M. s.n.* (MA!); Torrevieja, Cabo Roig, [37°59' N, 0°41' W], 18 February 1984, *Costa, M.; et al. s.n.* (SEV!); Villafranqueza, [38°23' N, 0°29' W], 23 March 1961, *Rigual, A. s.n.* (MA!); Nueva Tabarca, [38°10' N, 0°28' W], 30 November 1958, *Rigual, A. s.n.* (MA!); Villena, Base del Cabezo Redondo, [38°38' N, 0°51' W], 3 January 1960, *Rignal, A. s.n.* (MA!); Muchamiel, [38°25' N, 0°26' W], 5 May 1963, *Rigual, A. s.n.* (MA!);? Orilamel [?], [38°21' N, 0°29' W], April 1920, *Pau, C. s.n.* (MA!); Torrevieja, Cabo Roig, [37°55' N, 0°43' W], 18 February 1984, *Costa, M.; et al. 13* (BM, COL, K, RNG, SALA, VF, GDA!); Sierra de Orihuela, cruce em direction a Abonil, [38°06' N, 1°00' W], 15 March 1985, *Molero, J.; Sala; Valdés, B. s.n.* (BCN!);

San Vicente, Campus Universitario, [38°21' N, 0°29' W], 26 August 1993, *Torre, A.*;? *s.n.* (ABH!); **Almeria**: 4 km SW of Tabernas, 300 m, [37°03' N, 2°23' W], 3 June 1967, *Ball, P.W.;Chater, A.O.; Ferguson, I.K.; Valdés, B.* 140 (BM!); Cuevas del Alamazonra, Pozo del Esparto, 10 m, [37°20' N, 1°41' W], 27 March 1998, *Navarro, C.;et al.* 1782 (MA!); Almeria, [36°50' N, 2°27' W], 17 April 1851, *Bourgeau, E.* 807 (MA!); Plantas de Almeria, [36°50' N, 2°27' W], March 1944, *Jerónimo, H.* *s.n.* (MA,SANT!); LLanos de Almeria, 10 m, [36°45' N, 2°45' W], 3 April 1969, *Sampaio, G.* 454 (MA!); Almeria cemetery, 100 m, [36°50' N, 2°27' W], 4 June 1967, *Ball, P.W.;et al.* 1200 (SEV!); [36°47' N, 2°14' W], 11 March 1921, *unclear* 212 (MA!); près de Berja, 200 m, [36°51' N, 2°57' W], 27 May 1969, *Fac. Sci. Toulouse, Serv. Bot.* 1000 (MA!); Sierra de Cabo de Gata, [36°47' N, 2°14' W], 5 February 1932, *Jerónimo, H.* 8275 (MA,RAB,BCN!); Plage de Roquetas del Mar, [36°46' N, 2°36' W], *Fac. Sci. Toulouse, Serv. Bot.* 151 (MA!); Cuevas de Almanzora, Sierra Amagrera, 162 m, [37°18' N, 1°53' W], 14 April 2005, *Cabezas;Carrasco; Noya* 302 (MA,MACB!); Cabo de Gata, pr. mirador de Amatiste, [36°43' N, 2°12' W], 2 April 1996, *Castroviejo, S.* 13606 SC (MA!); de Mojácar a Carboneras, base de la Sierra Cabrera, 0 m 100 m, [37°08' N, 1°51' W], 24 March 1986, *López, G.* 9546 GL (MA!); entre Dalías y Berja, [36°51' N, 2°57' W], 20 February 1970, *Fernández Casas, J.* *s.n.* (MA!); El Ejido de Dalías, [36°49' N, 2°52' W], January 1970, *Fernández Casas, J.* *s.n.* (MA!); El Ejido, [36°47' N, 2°49' W], March 1970, *Fernández Casas, J.* *s.n.* (MA!); Serra do Cabo da Gata, [36°47' N, 2°14' W], 5 February 1922, *Jerónimo, H.* *s.n.* (BC!); near Turrillas, 2,5 km on road to Lucaina, 700 m, [37°02' N, 2°16' W], 19 April 1980, *Miles, C.J.;Phillipson, P.B.; Sinnreich, G.M.; Williams, R.S.* 403 (BM,RNG!); Málaga, Periana, [36°55' N, 4°12' W], 19 May 1927, *Ellman, E.;Nelmes, E.* 239 (K!); Playa del Sombrerico, 0 m, [36°50' N, 2°27' W], 16 April 2005, *Jury, S.L.* 20266 (RNG!); c. 42 km E of Las Negras, 5 m, [36°50' N, 2°27' W], 5 February 1990, *Jury, S.L.;Ross, J.D.* 10195 (RNG!); Sierra de Alhamilla 8 km North East of Nijar, 350 m, [36°58' N, 2°12' W], 13 April 1982, *Gardner, M.F.;Gardner, S.G.* 1630 (RNG!); Gurrucha, shore East of 3327 an 1 km North of town, 1 m, [36°50' N, 2°27' W], 12 April 1982, *Gardner, M.F.;Gardner, S.G.* 1557 (RNG!); Sierra de Cabo de Gata, [36°47' N, 2°14' W], 5 November 1932, *Sennen, F.* 8275 (MAF!); Almeria, [36°50' N, 2°27' W], April 1957, *España, L.* 1518 (MAF!); entre Overa y Vera, [37°23' N, 1°57' W], *Sagredo, H.* *s.n.* (MAF!); Sorbas, Rambla Mizada, pr. Cerro del Almendral WF8599, 250 m, [37°07' N, 2°07' W], 13 March 1999, *Crespo, M.B.;Solana, J.L.; Barber, A.; Cristobal, J.C.;et al.* *s.n.* (ABH!); Atochares, [36°50' N, 2°27' W], 14 April 1982, *Rico,*

E. s.n. (SALA!); SORBAS, [37°07' N, 2°07' W], 21 January 1960, *Rufino, Ho. s.n.* (SALA!); entre Pujaire e Cabo de Gata, 3 m, [36°46'46" N, 2°13'43" W], 2 April 2007, *Silveira, P.; & Carqueja MJM 2978* (AVE!); Espanha, Almeria, entre Pujaire e Cabo de Gata, 3 m, [36°46'46" N, 2°13'43" W], 2 April 2007, *Silveira, P.; & Carqueja MJM 2979* (AVE!); entre o farol de Cabo da Gata e La Fabriquilla, 54 m, [36°43'46" N, 2°11'59" W], 2 April 2007, *Silveira, P.; & Carqueja MJM 2980* (AVE!); entre Pujaire e Cabo de Gata, 3 m, [36°46'46" N, 2°13'43" W], 23 June 2009, *Silveira, P. 3051* (AVE!); 41 m 14 May 2010, *Ivorra Jiménez A in Silveira, P. 3118* (AVE!); a c. 3 km a SW de Tabernas, 346 m, [37°02'10" N, 2°25'06" W], 7 March 2010, *Nora, S.V. in Silveira, P. 3173* (AVE!); entre Pujaire e Cabo de Gata, 3 m, [36°46'46" N, 2°13'43" W], 7 March 2010, *Nora, S.V. in Silveira, P. 3175* (AVE!); estrada AL m3115 entre El Retamar e Pujaire, num caminho ao lado de uma casa abandonada, 31 m, [36°49'39" N, 2°15'54" W], 7 March 2010, *Nora, S.V. in Silveira, P. 3176* (AVE!); 44 m, [36°50'19" N, 2°17'35" W], 25 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3192* (AVE!); 14 m, [36°48'51" N, 2°14'13" W], 25 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3194 1* (AVE!); 14 m, [36°48'51" N, 2°14'13" W], 25 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3194 2* (AVE!); 3 m, [36°46'46" N, 2°13'43" W], 26 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3198 c* (AVE!); 3 m, [36°46'46" N, 2°13'43" W], 26 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3198 d* (AVE!); 31 m, [36°49'39" N, 2°15'54" W], 26 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3199* (AVE!); **Andorra**: Tramacastilla, [40°26' N, 1°34' W], *Almagro, D. s.n.* (VAL!); **Asturias**: San Juan de la Arena, Soto del Barco, [43°33'31" N, 6°04'18" W], 20 February 1983, *Aedo, C. s.n.* (MA!); La colonia de Santa Eulalia, [43°26' N, 6°47' W], 29 March 1959, *Rigual, A. s.n.* (MA!); Castropol, [43°32' N, 7°02' W], 6 June 1952, *Guinea, E. s.n.* (MA!); **Avila**: Ramacastañas, 400 m, [40°11' N, 5°02' W], 1 March 1987, *Vargas, P.; Guzmán; Luceño, M.; Martínez Escribano 1780 PV* (MA!); macizo central de Gredos, Candeleda, 450 m, [40°09' N, 5°14' W], 2 May 1986, *Vargas, P.; Luceño, M.; Martínez, V.; et al. 1035 PV* (MA!); Avilla, La Aldehuela, ermita, [40°39' N, 4°42' W], 26 March 1995, *Balbas, A.G. s.n.* (SALA!); **Badajoz**: Zafra, alrededores, [38°25' N, 6°25' W], 1 November 1986, *Vázquez, F. s.n.* (MA!); Valle de Matamoros, [38°23' N, 6°48' W], 4 January 1987, *Vázquez, F. s.n.* (MA!); Fuente del Maestre, Sierra Rubio, [38°32' N, 6°27' W], 28 December 1986, *Vázquez, F. s.n.* (MA!); Badajoz, El Toril, [37°37' N, 4°49' W], 20 April 1950, *Moreno Marques s.n.* (SEV!); Esparragosa de Lares, [38°58' N, 5°16' W], 18 April 1943, *Guerrero, G. s.n.* (MA!); Medellin, 200 m, [38°57' N, 5°58' W], 21 March 2001, *Aedo,*

C.;*et al.* 6011 CA (MA!); Badajoz, De Guareña a Don Benito, [38°53' N, 6°58' W], 10 April 1981, *Tellez, T.R. s.n.* (SALA!); Badajoz, Merida, Cerro Cortija, [38°55' N, 6°20' W], 18 April 1982, *Rico, E. s.n.* (SALA!); **Barcelona:** Barcelona, [41°23' N, 2°11' E], July 1900, *Sennen, F. s.n.* (MA!); Catalogne, Barcelone, Barranco de Bellesguart, [41°23' N, 2°11' E], 9 June 1915, *Sennen, F. 2705* (MA,BC,W!); Barcelona, Monserrat, [41°36' N, 1°49' E], *unclear s.n.* (MA!); Catalogne, Cabanas [...], [42°50' N, 7°56' W], 1908, *Sennen, F. s.n.* (MA!); Catalonia, pr. Barcelona, [41°23' N, 2°11' E], *Pau, C. s.n.* (MA!); Catalogne,????, [42°00' N, 2°00' E], 1900, *Sennen, F. s.n.* (MA!); Barcelona, Villanueva y Geltrú, [41°23' N, 2°11' E], 1 June 1981, *Devesa, J.A.;Luque, T.; Romero, C. 1696 81* (SEV!); Barcelona, Monserrat, [41°36' N, 1°49' E], 19 April 1916, *Sennen, F. s.n.* (BM!); Barcelona à Sarsia [?], [41°23' N, 2°11' E], 24 January 1903, *Sennen, F. s.n.* (BM!); Massif du Lilidabo [?], [41°23' N, 2°11' E], 4 May 1918, *Sennen, F. s.n.* (BM!); Catalogne, Premiá, [41°29' N, 2°22' E], 13 April 1914, *Sennen, F. s.n.* (BM!); Catalogne, Castosa, [43°00' N, 7°07' W], 4 November 1909, *Sennen, F. s.n.* (MA!); Barcelona à San Gervásio, [41°23' N, 2°11' E], July 1910, *Sennen, F. s.n.* (BC!); Campos c. de Barcelona, [41°23' N, 2°11' E], May 1922, *Cogolhos, J. 660* (BC!); Catalogne [...], [42°00' N, 2°00' E], 12 April 1909, *Sennen, F. s.n.* (BC!); Costas de Garraf, sables maritimus, [41°15' N, 1°54' E], 29 April 1930, *Sennen, F. s.n.* (BC!); Barcelona [...], [41°23' N, 2°11' E], May 1918, *Sennen, F. s.n.* (BC!); Anoia, el Bruc, Serral de Moixerigues, Si (CG90,83), 470 m, [41°35' N, 1°47' E], 24 April 1981, *Nuet Badia, J. s.n.* (BC!); Sta. Cren d'Olorde, [41°25' N, 2°06' E], 18 May 1941, *A de B s.n.* (BC!); Tibidabo, [41°25' N, 2°07' E], 3 April 1995, *Cervi, A.C.;Medeiros, N. 5553* (BC!); Anoia, La Polba de Claramunt, Els Mallons, [41°33' N, 1°41' E], 5 March 77, *Nuet Badia, J. s.n.* (BC!); S. Julia de Vilatorca, [41°55' N, 2°19' E], July 1867, *Ferrer, M. s.n.* (BC!); Barcelona, [41°23' N, 2°11' E], *Benth, H. 442* (K!); N of Barcelona, [41°23' N, 2°11' E], 12 May 1952, *Butcher, R.W. s.n.* (K!); Catalogne, Montserrat eboulis, [41°36' N, 1°49' E], 19 April 1916, *Sennen, F. s.n.* (BC!); Baix Llobregat, Mas d'Eu Goll, [41°19' N, 2°09' E], 1 November 1970, *Banau, J.;Andreu s.n.* (BC,BC!); Bages, Monistrol de Monserrat, Montserrat, 700 m, [41°36' N, 1°49' E], 7 May 1981, *Nuet Badia, J. s.n.* (BC!); Montes de Rubies, pr. Riu Barcelona, 410 m, [41°23' N, 2°11' E], 29 April 1979, *Romo, A.M. s.n.* (BC!); Llano de Barcelona, [41°23' N, 2°11' E], 10 May 72, *Costa, A.C. 1153* (BC!); [41°23' N, 2°11' E], 29 November 72, *Costa, A.C. 1120* (BC!); Catalogne, Cabanos, [42°50' N, 7°56' W], 30 April 1908, *Sennen, F. s.n.* (BC!); Baix Llobregat, Collbató, camí de la Vinya Nova, 405 m, [41°19' N, 2°09' E], 15 March 1981, *Nuet Badia, J. s.n.* (BC!); Bages, [41°45' N, 1°50' E], 1910,

Font Quer, P. s.n. (BC!); Mas de les Fonst, Vallirana, 450 m, [41°23' N, 1°56' E], 8 April 1990, *Nimot*, J.M. s.n. (BCN!); Barcelona, Gová, [41°23' N, 2°11' E], 30 May 1929, *Cuatrecasas*, J. s.n. (SANT!); Katalonien, prov. Gerona, Costa Brava, [41°45' N, 3°04' E], *BGBD (Bot. Gar. Berlin mDahlem) 716 in Silveira*, P. 3080 (AVE!); 125 m, [41°25'41" N, 2°02'25" E], 1 April 2012, *Silveira*, P.;*Gonçalves*, A.C.R.S. 3208 (AVE!); prox de um castelo, 142 m, [41°24'45" N, 2°01'54" E], 1 April 2012, *Silveira*, P.;*Gonçalves*, A.C.R.S. 3209 a (AVE!); 142 m, [41°24'45" N, 2°01'54" E], 1 April 2012, *Silveira*, P.;*Gonçalves*, A.C.R.S. 3209 b (AVE!); **Cantabria**: Santoña, [43°26'29" N, 3°27'27" W], 2 November 1984, *Herrera*, M. s.n. (MA!); [43°26'29" N, 3°27'27" W], 1 April 1986, *Aedo*, C. s.n. (MA!); [43°26'29" N, 3°27'27" W], 1 April 1986, *Herrera*, M. s.n. (MA!); [43°26'29" N, 3°27'27" W], 1 April 1986, *Herrera*, M. s.n. (MA!); **Castellón**: Sarratella, próximo Nas de Villalonga, 700 m, [40°19' N, 0°02' E], 27 February 1993, *Fabregat*, C.;*López Udias*, S. 4144 (MA!); Benicasim, [40°03' N, 0°04' E], 2 March 1984, *Mateo*, G. s.n. (MA!); Castelon, Culla, base de la Sierra Espaneguera, 600 40°18' N, 0°05' W], 23 February 1992, *Fabregat*, C.;*López Udias*, S. 2561 (MA!); Peñagolosa, [40°13' N, 0°21' W], *La Gasca* s.n. (MA!); **Ciudad Real**: San Lorenzo de Calatrava, cerro de la Encantada, 850 m, [38°28' N, 3°50' W], 26 March 2002, *Quintanar*, A. 88300 (MA!); Puerto de Mestanza, 980 m, [38°35' N, 4°04' W], 21 April 1979, *Ladero*, M.;*Chiscano*, P. s.n. (MA!); Almodovar del Campo, valle del rio Guadalmez, 500 m, [38°43' N, 4°10' W], 7 March 1998, *Garcia Rios*, R. s.n. (MA!); Ciudad Real, Solana del Pino, conjunto montañoso de Sierra Madrona, Valle del Rio Robledillo, 540 m, [38°24' N, 3°58' W], 10 February 1996, *Garcia Rios*, R.;*Perez*, J.B. s.n. (SALA!); Cuidad Real, Fuencaliente, Valmayor, 700 m, [41°44' N, 3°11' W], 23 March 1996, *Garcia Rios*, R. s.n. (SALA!); Fuencaliente, Sierra Madrona (S. del Cotillo), Valle Arroyo de la Parra, 760 m, [41°44' N, 3°11' W], 9 March 1996, *Garcia Rios*, R.;*Perez*, J.B. s.n. (SALA!); Cuidad Real, Puertollano, Sierra de Puertollano, subida a Fuente, 880 m, [38°41' N, 4°07' W], 1 April 1995, *Perez*, J.B.;*Garcia Rios*, R. s.n. (SALA!); Cuidad Real, Moral de Calatrava, Sierra del Moral, [38°50' N, 3°35' W], 12 March 1988, *Monge*, C.;*Abello*, A.R. s.n. (MACB!); **Cuenca**: Cuenca, Valeria, 30SWK70, [39°47' N, 2°09' W], 21 May 1995, *Pinillos*, J. s.n. (VAL!); Cuenca, El Cañavate, 30SWJ57, [39°32' N, 2°18' W], 7 May 1999, *Pinillos*, J. s.n. (VAL!); **Cáceres**: Guadalupe, [39°27' N, 5°19' W], 16 June 1948, *Caballero*, A. s.n. (MA!); Mirabel, [39°52' N, 6°14' W], 7 March 1980, *Belmonte*, D. s.n. (MA!); Jerte, [40°13' N, 5°45' W], 23 March 1968, *Segura Zubizarreta*, A. s.n. (MA!); Sierra de Altamira, entre Galvín y Valdelacasa de Tajo, [39°43' N, 5°17'

W], 26 May 1984, *Castroviejo, S. 9036 SC* (MA!); Cáceres, Cilleros, [40°07' N, 6°47' W], 1 March 1981, *Franzi, A.V. s.n.* (SALA!); Cáceres, Majadas, [39°57' N, 5°45' W], 19 March 1983, *Tellez, R. 4277* (SALA!); Cáceres, Perales del Puerto, [39°29' N, 6°22' W], 5 March 1978, *Franzi, A.V. s.n.* (SALA!); Cáceres, Almaraz, [39°49' N, 5°41' W], 25 April 1987, *Ladero, M.;Santos s.n.* (SALA!); Cáceres, Finca de la Alberca, [39°29' N, 6°22' W], 3 April 1986, *Ladero, M.;Santos s.n.* (SALA!); Cáceres, Torremenga, [40°03' N, 5°46' W], 20 March 1989, *Amor, A. s.n.* (SALA!); Cáceres, Hervas, [40°16' N, 5°51' W], 13 November 1987, *González, R.;Rodríguez, J.A.S. s.n.* (SALA!); [40°16' N, 5°51' W], 18 April 1994, *González, R. s.n.* (SALA!); Cáceres, Hervas, Las Dehesillas, [40°16' N, 5°51' W], 18 April 1994, *Rodríguez, J.A.S. s.n.* (SALA!); Cáceres, Hervas, Puente de Hierro, [40°16' N, 5°51' W], 30 January 1997, *Arco, C.J. s.n.* (SALA!); **Cádiz:** 23 km from Jerez de la Frontera, 130 m, [36°41' N, 6°08' W], 22 December 1993, *Jury, S.L.;Jury, L.C. 13110* (BM,MA,RNG!); 5 km S of Sanlúcar de Barrameda, [36°47' N, 6°21' W], 24 April 1973, *Leadlay, E.A.;Smith, V.A.W.; Petty, B.; Sutton, C.J. 510* (BM!); Palomino de Olvera, 400 m, [36°56' N, 5°16' W], 16 January 2000, *Otero, A. 21* (MA!); Puerto Real a Cádiz, [36°32' N, 6°11' W], *unclear s.n.* (MA!); Provincia de Cádiz, [36°32'01" N, 6°17'58" W], 12 February 1980, *Molesworth Allen, B. 11368* (SEV!); entre Chipiona y Rota, Pinar de La Ballena, [36°44' N, 6°26' W], 27 January 1978, *Cabezudo, B.;Silvestre, S. s.n.* (SEV!); entre Estepa y Bornos, [37°18' N, 4°54' W], 11 September 1977, *Silvestre, S.;Soler, A. 824 77* (SEV!); El Cuervo, Montegil, [36°51' N, 6°02' W], 2 February 1968, *Galiano, E.F.;et al. 878 68* (SEV!); El Cuervo, [36°51' N, 6°02' W], 24 March 1968, *Gutierrez, N.;Silvestre, S.; Valdés, B. 1196 68* (SEV!); Alcalá de los Gazules, [36°28' N, 5°44' W], 8 March 1970, *Cabezudo, B. s.n.* (SEV!); Puerto de Santa Maria, carretera de Jerez a Rota, Balbaína, [36°41' N, 6°14' W], 27 January 1978, *Cabezudo, B.;Silvestre, S. s.n.* (SEV!); Tarifa, Sierra de Ojén, Cerro de la Parra, 500 m, [36°00'45" N, 5°36'20" W], 30 March 1980, *Arroyo, J.;et al. s.n.* (SEV!); Los Barrios, carretera de Algeciras a Los Barrios, km 6, 60 m, [36°11' N, 5°30' W], 19 March 1981, *Arroyo, J.;Fernández; Gil, J. x 2130 81* (SEV!); Laguna de la Janda, [36°15' N, 5°51' W], 8 December 1965, *Galiano, E.F.;Novo, J. s.n.* (SEV!); Chiclana, [36°25' N, 6°08' W], 8 February 1969, *Gibbs, P.E. s.n.* (SEV!); Tarifa 2 mi. to NW, [36°00'45" N, 5°36'20" W], 27 March 1969, *Heywood, V.H.;Moore, D.M.; et al. 167* (SEV,RNG!); Espera, Los Jijos, [36°52' N, 5°48' W], 10 May 1974, *Silvestre, S. s.n.* (SEV!); Algodonales, Sierra de Lijar, 500 m, [36°53' N, 5°25' W], 5 April 1979, *Aparicio, A.;Cabezudo, B.; Silvestre, S. s.n.* (SEV!); Chiclana de la Frontera, cantera junto a la Ermita de Nuestra Señora de la

Soledad, [36°25' N, 6°08' W], 27 March 1981, *Romero, C.;Silvestre, S. s.n.* (SEV!); Chiclana de la Frontera, Ermita de Santa Ana, [36°25' N, 6°08' W], 27 March 1981, *Romero, C.;Silvestre, S. s.n.* (SEV!); [36°25' N, 6°08' W], 27 March 1981, *Romero, C.;Silvestre, S. s.n.* (SEV!); entre Zahara y Grazalema, Puerto Acebuches, Llano del Pozo, frente a la campronera, 900 m, [36°46' N, 5°22' W], 29 March 1980, *Martínez, A. s.n.* (SEV!); entre Zahara y Grazalema, Puerto Acebuches, Cerro del Pluviómetro, 800 m 900 m, [36°50' N, 5°24' W], 16 February 1980, *Martínez, A. s.n.* (SEV!); 800 m, [36°50' N, 5°24' W], 16 February 1980, *Martínez, A. s.n.* (SEV!); Tarifa, Sierra de Saladavieja, Llanura entre Molino de Enmedio y Rio Almodovar, 100 m 200 m, [36°00'45" N, 5°36'20" W], 30 March 1980, *Amor, F.;Arroyo, J. s.n.* (SEV!); Algeciras, Sierra de Luna, 100 m, [36°07'39" N, 5°27'14" W], 4 February 1968, *Galiano, E.F.;et al. s.n.* (SEV!); entre San José del Valle y Paterna, km 13, [36°31' N, 5°52' W], 2 November 1979, *Devesa, J.A.;Luque, T.; Romero, C. 5598 79* (SEV!); alrededores de Los Barrios, [36°11' N, 5°30' W], 3 February 1968, *Galiano, E.F.;et al. s.n.* (SEV!); Pozo Amargo, hacia Coripe, [36°58' N, 5°26' W], 4 May 1979, *Candau, P.;Fernández, I. 2521 79* (SEV!); Arcos de la Frontera, huerta de la Morena, [36°45' N, 5°48' W], 3 February 1978, *Silvestre, S.;et al. s.n.* (SEV!); Algodonales, Sierra de Lijar, 500 m 1000 m, [36°53' N, 5°25' W], 19 January 1980, *Aparicio, A. 2 80* (SEV!); 500 m, [36°53' N, 5°25' W], 19 January 1980, *Aparicio, A. s.n.* (SEV!); Jerez de la Frontera on San Lucar road, 45 m, [36°41' N, 6°08' W], 17 April 1951, *Alston, A.H.G. 10223* (BM!); at Algar, near Arios, 92 m, [36°39' N, 5°39' W], 2 May 1961, *Stace, C.A. 399* (BM!); [36°08'03" N, 5°20'45" W], 22 December 1911, *Wolley mDod, A.H. 79* (BM!); de Puerto de Santa Maria a Cádiz, 30 m, [36°36' N, 6°14' W], 20 March 1974, *González, A.;López, G. s.n.* (MA!); Grazalema, Sierra S Cristobal, [36°46' N, 5°22' W], *Gredilla s.n.* (MA!); del Puerto de Santa Maria a Cádiz, [36°36' N, 6°14' W], 16 March 1974, *González, A.;López, G. 1961 GF* (MA!); ex rupibus calcareis montis Calpes, 14 June 1851, *Ball, J. s.n.* (K!); circa oppidum Puerto de Sta. Maria, [36°36' N, 6°14' W], 11 February 1845, *Willkomm, H.M. 432* (K!); [36°08' N, 5°20' W], February 1841, *Lemann, C. s.n.* (K!); Gibraltar, [36°08' N, 5°20' W], December 1840, *Lemann, C. s.n.* (K!); roadside near Algeciras, [36°07'39" N, 5°27'14" W], 13 April 1913, *Wolley mDod, A.H. 1766* (K!); October 1847, *Hurst, H.A. s.n.* (K!); 5 km S of Sanlucar de Barrameda., [36°47' N, 6°21' W], 24 April 1973, *Leadlay, E.A.;Smith, V.A.W.; Petty, B.; Sutton, C.J. 520* (RNG!); Jerez. Garrigue, main road N of Jerez, [36°41' N, 6°08' W], 9 April 1977, *Dent, C.M. 141* (RNG!); Algeciras. Sierra de Luna, 100 m, [36°07'39" N, 5°27'14" W], 4 February 1968, *Galiano, E.F.;Heywood,*

V.H.; *Silvestre, S.; Valdés, B. s.n.* (RNG!); Algeciras, [36°07'39" N, 5°27'14" W], April 1971, *Carr, J.W. 701* (RNG!); upper plataform of Cable Car, 24 March 1969, *Heywood, V.H.; Moore, D.M.; et al. 4* (RNG!); Algeciras, [36°07'39" N, 5°27'14" W], 21 November 1962, *unknwon s.n.* (SANT!); Zahara de la Sierra, cercanias del pueblo, [36°08'08" N, 5°50'43" W], 9 January 1983, *Aparicio, A.; et al. s.n.* (SALA,SEV!); Cádiz, Puerto de Cabanas by Olvera, [36°56' N, 5°16' W], *NCRPIS (USDA) PI597586 in Silveira, P. 3099* (AVE!); ... sa;da da povoaçã;o pela Calle del Retiro em direçã;o ... N340, 126 m, [36°15'22" N, 5°57'57" W], 24 March 2012, *Silveira, P.; Gonçaves, A.C.R.S. 3187* (AVE!); 126 m, [36°15'22" N, 5°57'57" W], 24 March 2012, *Silveira, P.; Gonçaves, A.C.R.S. 3188* (AVE!); 126 m, [36°15'22" N, 5°57'57" W], 24 March 2012, *Silveira, P.; Gonçaves, A.C.R.S. 3189* (AVE!); **Córdoba:** entre Almodovar y Posadas, orillas del rio Guadiato, [37°48' N, 5°06' W], 28 February 1974, *Cabezudo, B.; Silvestre, S. 79 74* (MA!); Córdoba, carretera de Guadalcazar, a partir de la N mIV, arcenes de los 5 primeros kms, [37°45' N, 4°56' W], 16 March 1979, *Muñoz, J.; Varela, J. s.n.* (SEV!); Comarca de los Pedroches, Dos Torres, Cortijo de Josefa Calvo, [38°27' N, 4°54' W], 9 May 1976, *Devesa, J.A. s.n.* (SEV!); Comarca de Los Pedroches, Pozoblanco, inmediaciones del A. Sta. Maria, [38°22' N, 4°51' W], 6 November 1977, *Devesa, J.A. s.n.* (SEV!); Comarca de Los Pedroches, Belalcázar, Finca El Palomar, [38°34' N, 5°10' W], 17 September 1976, *Devesa, J.A. s.n.* (SEV!); Comarca de Los Pedroches, Belalcázar, La Encinilla, [38°34' N, 5°10' W], 28 September 1976, *Devesa, J.A. s.n.* (SEV!); Comarca de Los Pedroches, Pozoblanco, Cortijo de la Romana, [38°22' N, 4°51' W], 2 April 1976, *Devesa, J.A. s.n.* (SEV!); Comarca de Los Pedroches, Torrecampo, ribajos del rio Guadamora, [38°28' N, 4°40' W], 16 May 1976, *Devesa, J.A. s.n.* (SEV!); Comarca de Los Pedroches, Cardeña, Torrubia, [38°01' N, 3°40' W], 23 May 1976, *Devesa, J.A. s.n.* (SEV!); pr. Hornachuelos, puente del Madroño, 370 m, [37°50' N, 5°14' W], 12 May 2006, *Aedo, C. 12736* (MA!); Castro del Rio, [37°41' N, 4°28' W], 4 April 1955, *Ciado, A. s.n.* (SANT!); Córdoba [37°53' N, 4°46' W], 4 May 1924, *Ellman, E.; Hubbard, C. 64* (K!); **Gerona:** Girona, Navata, [42°13' N, 2°52' E], June 1981, *Devesa, J.A.; Luque, T.; Romero, C. 2012 81* (SEV!); Girona, La Sellera, [41°58' N, 2°38' E], October 1916, *Cadina s.n.* (BC!); Girona, La Sellera i Sant Julia del Llor, [41°59' N, 2°49' E], 25 October 1920, *unclear 300* (BC!); Blanes, [41°41' N, 2°48' E], 19 March 1945, *Font Quer, P. s.n.* (BC!); Gerona, Camprodón, [41°59' N, 2°49' E], April 1922, *Cuatrecasas, J. s.n.* (MAF!); [41°59' N, 2°49' E], May 1922, *Cuatrecasas, J. s.n.* (MAF!); **Granada:** 5 km E of Ugijar on C. 331, Alpujarra Alta, [36°57' N, 3°03' W],

12 April 1973, *Leadlay, E.A.;Smith, V.A.W.; Petty, B.; Sutton, C.J.* 19 (BM,RNG!); Almuñecar, [36°43' N, 3°41' W], May 1907, *Vicioso, C.;Vicioso, B. s.n.* (MA!); [36°43' N, 3°41' W], April 1907, *Vicioso, B. s.n.* (MA!); Granada, [37°11' N, 3°36' W], *unclear s.n.* (MA!); Guadix, [37°18' N, 3°08' W], 28 April 1973, *Galiano, E.F.;Silvestre, S.; Valdés, B.* 1385 73 (SEV!); entrada a La Alpujarra, Yegen, 980 m, [36°59' N, 3°08' W], 21 May 1976, *Cabezudo, B.* 1076 76 (SEV!); Granada [?], Roque, [37°11' N, 3°36' W], April 1902, *Cenza s.n.* (BM!); Almuñecar, [36°43' N, 3°41' W], *Vicioso, C. s.n.* (MA!); [36°43' N, 3°41' W], May 1907, *Vicioso, C.* 83 (MA!); pr. Torvizcón, 970 m, [36°53' N, 3°18' W], 14 April 2002, *Aedo, C.* 7536 (MA!); [36°43' N, 3°41' W], *Vicioso, B. s.n.* (MA!); puerto del Suspiro del Moro, junto a la carretera N m323, km 151, 900 m, [37°04' N, 3°39' W], 28 April 2000, *Vargas, P.;Fiz, O.; Martínez, J.; Valcárcel, V.* 125 PV (MA,SALA,JAEN!); Sevilla et Granada, [37°11' N, 3°36' W], *unknown* 432 (K!); Granada, [37°11' N, 3°36' W], *Willkomm, H.M.* 915 (K!); [37°11' N, 3°36' W], April 1852, *Lange, J. s.n.* (C!); **Guadalajara:** Sacedón, [40°29' N, 2°43' W], 11 May 1969, *Bellot, F.;Ron s.n.* (MA!); Guadalajara, [40°38' N, 3°10' W], 19 April 1986, *Lamata, F. s.n.* (MA!); Guadalajara, P. de Entrepeñas, entre Cuenca y Guadalajara, [40°38' N, 3°10' W], 3 February 1977, *Izco, J. s.n.* (SANT!); Baidés, [41°00' N, 2°46' W], 9 March 1980, *Llansana, R. s.n.* (MACB!); **Guipúzcoa:** Irun, alrededores del campo de futbol, [43°21' N, 1°47' W], 21 September 1983, *Salaverria, M.A.* 002858 (ARAN!); **Huelva:** Huelva, Almonte, Reserva Biológica de Doñana, Carretera de Matalascañas, [37°15'53" N, 6°30'59" W], 3 March 1966, *Galiano, E.F.;Novo, J. s.n.* (SEV!); Huelva, entre El Rocío y Torre la Higuera, [37°08'00" N, 6°29'16" W], 21 March 1978, *Devesa, J.A. s.n.* (SEV!); Huelva, El Almendro, [37°30' N, 7°16' W], 11 March 1977, *Cabezudo, B.;Silvestre, S.* 152 77 (SEV!); Huelva, Valdezufre, [37°52' N, 6°29' W], 26 April 1975, *Cabezudo, B.* 1188 75 (SEV!); Huelva, Sierra de Aracena, Jabugo, [37°55' N, 6°44' W], 23 May 1978, *Rivera, J.;Cabezudo, B.* 1856 R (SEV!); Huelva, entre Almonte y Bollullos del Condado, [37°15'53" N, 6°30'59" W], 12 March 1978, *Cabezudo, B.;et al.* 764 78 (SEV!); Huelva, Sierra de Aracena, Higuera de la Sierra, [37°50' N, 6°27' W], 14 April 1978, *Rivera, J.* 863 R (SEV!); Huelva, Sierra de Aracena, entre Valdeflores y Aracena, cruce a Zufre, [37°44' N, 6°21' W], 10 March 1978, *Rivera, J.* 123 R (SEV!); Huelva, Sierra de Aracena, Entre Higuera de la Sierra y Valdezufre, [37°50' N, 6°27' W], 10 March 1978, *Rivera, J.* 205 R (SEV!); Huelva, Sierra de Aracena, encima de Linares de la Sierra, [37°53' N, 6°37' W], 7 April 1978, *Rivera, J.* 384 R (SEV!); Huelva, Sierra de Aracena, entrada a navahermosa, [37°55' N, 6°40' W], 25 April 1978, *Rivera, J.* 1216 R (SEV!); Huelva,

Sierra de Aracena, entre Valdeflores e Higuera de la Sierra, arroyo del Rey, [37°44' N, 6°21' W], 24 February 1978, *Rivera, J. 64 78* (SEV,RNG!); Huelva, Sierra de Aracena, entre Fuenteheridos y Alajar, repetidor de teléfonos, [37°54' N, 6°39' W], 14 April 1978, *Rivera, J. 634 R* (SEV!); Huelva, Sierra de Aracena, Alajar, [37°52' N, 6°39' W], 5 May 1978, *Rivera, J. 1415 R* (SEV!); Huelva, Lepe, entrada dirección Huelva, Ayamonte, laderas de la carretera, [37°15' N, 7°12' W], 20 February 1979, *Gómez, J.M. s.n.* (SEV!); Huelva, Moguer, Playa de El Loro, [37°16'33" N, 6°50'08" W], 10 November 1980, *Silvestre, S. s.n.* (SEV!); Huelva, Sierra de Aracena, entre La Corte de Santa Ana y Almonáster la Real, [37°52' N, 6°47' W], 12 May 1978, *Cabezudo, B.;Rivera, J.; Silvestre, S. 1689 R* (SEV!); Huelva, entre el Rocío y Matalascañas, [37°08'00" N, 6°29'16" W], 19 March 1968, *Galiano, E.F.;Silvestre, S.; Valdés, B. 1172 68* (SEV!); Ayamonte, [37°13' N, 7°24' W], 5 May 1903, *Pau, C. s.n.* (MA!); Huelva, [37°15'30" N, 6°57'03" W], *Pau, C. s.n.* (MA!); **Huesca**: Huesca, Angüés, 510 m, [42°07' N, 0°09' W], 21 April 1984, *Aizpuru, I. 19721* (MA,ARAN!); 4,3 km NW de Peñalba, 325 m, [41°31'02" N, 0°02'32" W], 31 March 2012, *Silveira, P.;Gonçalves, A.C.R.S. 3207* (AVE!); **Islas Baleáres**: about 5 km ESE of Esporlas and 1 km West of S' Esgleieta cross mroads, towards Esporlas, 120 m, [39°40' N, 2°34' E], 16 February 1971, *Ferguson, L.F.;Ferguson, I.K. 3007* (BM!); Baleáres, Ciutadella, Camí de Sa Malagarba, 80 m 25 October 1998, *Fraga, P.;Arguimbad s.n.* (MA!); Mallorca, Puig Rodò, Sa Vileta mSon Quint, Palma, 150 m, [39°30' N, 3°00' E], 3 January 1999, *Sàez, L. 5179* (MA!); Baleáres, Mahón, [39°53' N, 4°15' E], 20 January 1900, *Pons, A.;Guerau s.n.* (MA!); Mallorca, [39°30' N, 3°00' E], September 1911, *Pau, C. s.n.* (MA!); Baleáres, Ibiza, [39°00' N, 1°25' E], April 1899, *Pau, C. s.n.* (MA!); Palma, [39°30' N, 3°00' E], 29 September 1946, *Ferrer, P. s.n.* (MA!); Cabrera, [39°09' N, 2°56' E], 19 April 1948, *Ferrer, P. s.n.* (MA!); "Flora Caprerense, Casas d'Es Port", [39°09' N, 2°56' E], 2 June 1947, *Ferrer, P. s.n.* (MA!); Ibiza, c. del Puerto, [39°00' N, 1°25' E], 12 April 1949, *Ferrer, P. s.n.* (MA!); Mallorca, Génova, [39°30' N, 3°00' E], 2 March 1952, *Ferrer, P. 427* (MA,SANT,BC!); Ibiza, Santa Eulalia, [39°00' N, 1°25' E], 6 June 1981, *Devesa, J.A.;Luque, T.; Romero, C. 2198 81* (SEV!); Mallorca, Baleáres, Ca'n Picafort, friche vers la rivièrre, [39°30' N, 3°00' E], 4 April 1977, *Duvigneaud, J. 77 E40* (SEV!); Algaida, about 25 km from Manacor on the C715 to Plama, 250 m, [39°34' N, 3°12' E], 3 June 1966, *Bowden, L.F.;Sims, P.A. 322* (BM!); Ibiza, fields around village of Talamanca about 2 km East of Ibiza, along coast, [39°00' N, 1°25' E], 5 May 1968, *Bowden, L.F.;Sims, P.A. 1603* (BM!); on shingle beach of the Playa, Puerto Soller,

[39°46' N, 2°42' E], 4 June 1954, *Cannon, M.J.; Cannon, J.F.M.* 2697 (BM!); Mallorca, Bellver, Palma, 700 m, [39°30' N, 3°00' E], 23 January 1921, *Godman, E.M.* 8 (BM!); Ibiza, San Antonio Abad, [39°00' N, 1°25' E], September 1982, *Aedo, C. s.n.* (MA!); Baleáres, Mallorca, entre Andraitx y el puerto de Andraitx, 110 m, [39°30' N, 3°00' E], 13 August 1994, *Izuzquiza, A.; Campón, A.* 2730 AI (MA!); Baleáres, Ibiza, [39°00' N, 1°25' E], April 1899, *Pau, C. s.n.* (MA!); Mallorca, Génova, [39°30' N, 3°00' E], 2 March 1952, *Ferrer, P.* 471 (COI!); Illa de S' Espartar, próximo Eivissa, [38°57' N, 1°12' E], 25 May 1918, *Gros, E. s.n.* (BC!); Ilha de Tagomago próximo de Eivissa, [39°02' N, 1°39' E], 4 June 1918, *Gros, E. s.n.* (BC!); in Pyttunsis, Eivissa, Sa Rota Vella de Corona, [39°00' N, 1°25' E], 12 April 1960, *Bolos, O. s.n.* (BC!); al costat de les cases del Port, [...] del camí d'el Castel, [39°09' N, 2°56' E], 19 April 1948, *Ferrer, P. s.n.* (BC!); Eivissa, Santa Gertrudis, [39°00' N, 1°25' E], 1 June 1981, *Maledona s.n.* (BC!); Eivissa, Playa d'En Bossa, [38°53' N, 1°24' E], 23 March 1918, *Font Quer, P. s.n.* (BC!); Eivissa, Pla de Vila, [39°00' N, 1°25' E], 27 March 1918, *Font Quer, P. s.n.* (BC!); Illa de Cabrera, canal de les Quatre Quatre, sades fi del ami, jujanta la cara d'es garriguer, [39°09' N, 2°56' E], 12 June 1933, *Mareos, A. s.n.* (BC!); Eivissa, Illa Plana, [39°12' N, 2°59' E], 22 March 1918, *Font Quer, P. s.n.* (BC!); Mahon, [39°53' N, 4°15' E], November 1912, *Font Quer, P. s.n.* (BC!); [...] Mahon, [39°53' N, 4°15' E], 20 January 1913, *Font Quer, P. s.n.* (BC!); Menorca, entre Mahón y S. Luis, [39°53' N, 4°15' E], 13 February 1913, *Font Quer, P. s.n.* (BC!); Palma de Mallorca, Porto Pi, [39°34' N, 2°39' E], March 1917, *Font Quer, P. s.n.* (BC!); Pont d'Inca, [39°43' N, 2°54' E], 6 November 1916, *Bianor mMaire, F. s.n.* (BC!); Menorca, entre Mahon y C. Luis, [39°53' N, 4°15' E], 19 February 1913, *Font Quer, P. s.n.* (BC!); Cabrera, camí d'er Castel, [39°09' N, 2°56' E], 19 April 1948, *Ferrer, P. s.n.* (BC!); Menorca, Mahon, [39°53' N, 4°15' E], 12 April 1885, *Porta, P.; Rigo, G. s.n.* (K!); Soller, [39°46' N, 2°42' E], 19 March 29, *Edmonds, M.E.* 7 (K!); Majorca, [39°30' N, 3°00' E], February 1827, *Cambris s.n.* (K!); [39°30' N, 3°00' E], February 1921, *unknwon 11* (K!); Mallorca, Puerto?Pollença?, [39°30' N, 3°00' E], 4 April 29, *Edmonds, M.E.* 166 (K!); Mallaroca, Pollença, [39°53' N, 3°01' E], 12 December 34, *Martindale, G.E.* 88 (K!); Mallorca, Pollença, [39°53' N, 3°01' E], 21 December 35, *Martindale, G.E.* 181 (K!); Mallorca, Valdemossa, [39°30' N, 3°00' E], 31 March 31, *unclear 145* (K!); Palum de Mallorca, [39°30' N, 3°00' E], 20 March 1918, *Font Quer, P. s.n.* (BC!); Maho, [39°53' N, 4°15' E], 9 January 1913, *Font Quer, P. s.n.* (BC!); Ibiza, Santa Eulalia, [38°59' N, 1°30' E], 7 December 1968, *Parker, C. Ib 1* (RNG!); Menorca, Ciutadella, Naveta de Tudons,

around aecheological site on road to Maó, c. 7 km from Ciutadella, [40°00' N, 4°00' E], 25 April 2004, *Jury, S.L. 20003* (RNG!); Es cana near Santa Eulalia, [40°00' N, 4°00' E], 24 May 1966, *Cannon, J.F.M.; Cannon, M.J. 3169* (RNG!); Mallorca, [39°30' N, 3°00' E], April 1968, *Pedersen, A. s.n.* (C!); [39°30' N, 3°00' E], 20 March 1967, *Lütken, P. s.n.* (C!); Balearen, Mallorca, N Alcudia, Bon Aire, Kalk, [39°52' N, 3°07' E], *Dürbye/Kirchhoff 1218 in BGBD 717 in Silveira, P. 3081* (AVE!); **Jaén:** Andújar, merendero, 250 m, [38°03' N, 4°04' W], 30 January 1993, *Molina, J.R. s.n.* (MA!); Baños de la Encina, Charca de la Enea, [38°10' N, 3°46' W], 22 July 1992, *Molina, J.R. s.n.* (MA!); Colegio Universitario, 440 m, [37°46' N, 3°47' W], 2 April 1984, *Fernández, C. 125* (MA,GDA,SALA!); Siles, 740 m, [38°23' N, 2°35' W], 1 May 1985, *Soriano, C. s.n.* (MA!); La Puerta de Segura, junto a la carretera de Orcera, 500 m, [38°19' N, 2°39' W], 1 April 1985, *Soriano, C. s.n.* (MA!); Villanueva del Arzobsipo, vertiente meridional del cerro Corentia, 1080 m, [38°10' N, 3°00' W], 1 May 1985, *Soriano, C. s.n.* (MA!); Colegio Universitario, 400 m, [37°46' N, 3°47' W], 20 March 1983, *Espinosa, M.A. 831351* (MA!); Jaén, entre La Carolina y El Centenillo, [38°20' N, 3°44' W], 12 April 1988, *Herrera, J.; Romero, C.; Talavera, S. 40 88* (SEV!); Aldeaquemada, alrededores del pueblo, [38°24' N, 3°22' W], 28 May 1953, *Galiano, E.F. s.n.* (SEV!); Jaén, near Cazorla, 400 m, [37°55' N, 3°00' W], 6 April 1979, *Molesworth Allen, B. 11172* (SEV!); Jaén, cerca de Aldeaquemada, ladera del rio Guarrizas, [38°24' N, 3°22' W], 27 May 1980, *Luque, T.; Ubera, J.; Valdés, B. s.n.* (SEV,RNG!); Villanueva de La Reina a Espeluy, 240 m, [38°02' N, 3°52' W], 1 November 2002, *Casado Ponce, D. s.n.* (MA,JAEN!); [37°46' N, 3°47' W], 27 April 1941, *Guinea, E. s.n.* (MA!); Jaén, Jódar, Cerro Nando, [37°50' N, 3°21' W], 27 April 1941, *Guinea, E. s.n.* (MA!); Jaén, entre Sta Elena y Despeñaperros, a unos 3 km de Sta Elena, 600 m 700 m, [38°20' N, 3°32' W], 7 March 1988, *Pedrol, J. 2572 JP* (MA!); Jaén, Cazorla, 1400 m, [37°55' N, 3°00' W], 22 March 1952, *Roivainen, H. s.n.* (K!); Jaén. roadside c. 1 km W of Jimena, c. 35 km E of Jaén, [36°26' N, 5°27' W], 7 April 1970, *Fraser mJenkins, C.R. 210* (RNG!); Jaén, roadside S of Rio Guadalquivir between Peal de Becerro & Torreperogil, between Ubeda & Cazorla, [36°47' N, 6°22' W], 3 April 1970, *Fraser mJenkins, C.R. 174* (RNG!); Jaén, Sierra de Cazorla, between Carzola & Peal, [37°55' N, 3°00' W], 28 May 1962, *Kjellqvist, E.; Löve, A. N 339* (RNG!); roadsides between Cazorla and Peal, [37°55' N, 3°00' W], 28 May 1962, *Löve, A.; Kjellqvist, E. 339* (LD!); Jaén, Sierra Morena, Venta de Cárdenas, [38°29' N, 7°00' W], April, *Lázaro, B. s.n.* (MAF!); Santa Elena, Puerto de Despeñaperros, 850 m, [37°46' N, 3°47' W], 26 April 1989, *Montserrat, P.; Gómez, D.;*

Garcia, R. s.n. (ABH,JACA!); **La Coruña:** Sta Uxía de Ribeira, por la carretera de Corrubedo, [42°34' N, 9°05' W], 27 January 1993, *Oubiña, J.R. s.n.* (MA!); arenas de Corrubedo, [42°34' N, 9°05' W], *Merino, P. 81* (MA!); Sta Uxía de Ribeira, por la carretera de Corrubedo, [42°33' N, 9°00' W], 27 January 1993, *Oubiña, J.R. s.n.* (COI,SANT!); Sta. Uxía de Ribeira, por la careterra de Corrubedo, [42°34' N, 9°05' W], 21 January 1993, *Oubiña, J.R. s.n.* (VAL,SALA,SANT!); Caranza (Ferrol), [43°29' N, 8°12' W], 3 November 2003, *Fagundez, J. 1964* (SANT!); Covas, Santa Comba (Ferrol), [42°57' N, 9°05' W], 18 February 2001, *Fagundez, J. 1478* (SANT!); Lodoño, [43°10' N, 8°25' W], 23 February 1986, *Abuin, J. s.n.* (SANT!); Covas, Santa Comba (Ferrol), 40 m, [42°57' N, 9°05' W], 18 February 2001, *Fagundez, J. 1477* (SANT!); A Coruña, Rianxo, Brion, Leivo, 60 m, [42°39' N, 8°53' W], 21 March 1997, *Real, V. s.n.* (SANT!); Covas, Santa Comba (Ferrol), 30 m, [42°57' N, 9°05' W], 7 July 1994, *Gómez, F.X. s.n.* (SANT!); Boiro, Cabo de Cruz, Praia de Caranguejos, [43°00' N, 6°51' W], 19 April 1986, *Izco, J.;Guitan, P. s.n.* (SANT!); Ribeira, Praia de Caroso, [42°33' N, 9°00' W], 9 April 1986, *Izco, J.;Guitan, P. s.n.* (SANT!); [42°33' N, 9°00' W], 9 April 1986, *Izco, J.;Guitan, P. s.n.* (SANT!); A Coruña, Dumbria, Ezaro, O Boliño, [42°55' N, 9°08' W], 13 February 1994, *Lonzán, R.J. 130* (SANT!); Carnota, Larino, [42°47' N, 9°07' W], 10 March 1996, *Lonzán, R.J. 179* (SANT!); Vilanova de Arousa, Playa de las Sinas, entre el camping Las Sinas y Vilanova, [42°34' N, 8°53' W], 26 March 2000, *Izco, J. s.n.* (SANT!); A Coruña, Rianxo, Brion, Leiro, [42°39' N, 8°53' W], 21 March 1997, *Real, V. s.n.* (SANT!); A Coruña, Camariñas, subida o Cabo Vilan, [43°07' N, 9°10' W], 7 May 1994, *Izco, J.;Amigo, J.; Lonzán, R.J. s.n.* (SANT!); Carnota, Larino, Praia de Larino, [42°47' N, 9°07' W], 21 April 1996, *Lonzán, R.J. 283* (SANT!); **La Rioja:** Logroño, [42°28' N, 2°27' W], *unclear s.n.* (MA!); cerro del Camino de Lognesadia [?] (Logroño), [42°28' N, 2°27' W], *unclear s.n.* (MA!); Calabora, [42°20' N, 2°30' W], 1 May 1995, *Aizpuru, I. 052454* (ARAN!); **León:** Castilla, Bajedo, [41°00' N, 3°30' W], 18 May 10, *Elías s.n.* (BC!); **León:** Venta de San Juan de Paluezas, 550 m, [42°31' N, 6°43' W], 18 April 1992, *Penas, A.;Garcia, M.E.; Herrero, L. s.n.* (MA!); Salas de la Ribera, [42°26' N, 6°49' W], 19 April 1992, *Penas, A.;Garcia, M.E.; Herrero, L. s.n.* (MA,LEB,SALA,SANT!); Salamanca, Ciudad Rodrigo, just below walls of town, [40°58' N, 5°39' W], 24 April 1967, *Brummitt, R.K.;Ernest, W. 5817* (K!); [40°58' N, 5°39' W], 4 May 1967, *Brummitt, R. K.;Ernest, W. 5990* (K!); Venta San Juan Paluezas, 550 m, [42°36' N, 5°34' W], 19 April 1992, *Penas, A.;et al. s.n.* (VAL,LEB,SALA,SANT!); próximo Salas de la Ribera, 400 m, [42°36' N, 5°34' W], 19 April 1992, *Penas, A.;Garcia,*

M.E.; *Herrero, L. s.n.* (VAL,VAL,LEB!); **Lugo**: Quiroga, Viñedo, Linario mcalenduletum, [42°29' N, 7°16' W], 28 April 1979, *Izco, J. s.n.* (SANT!); Palas del Rey, [42°52' N, 7°52' W], 15 April 1951, *Seijas s.n.* (SANT!); Sober, Vilacha de Salvadas, 400 m, [42°28' N, 7°36' W], 27 April 1996, *Amigo, J.; Ortiz, S.; Lonzán, R.S. 837* (SANT!); Ribas de Sil, Cubela, 275 m, [42°25' N, 7°41' W], 27 April 1996, *Amigo, J.; Ortiz, S.; Lonzán, R.S. 940* (SANT!); Sober, Anandi, [42°28' N, 7°36' W], 9 March 1991, *Romero, M.I. s.n.* (SANT!); **Lérida**: Ales(os) de Balaguer, Sierra Carbonera, [41°54' N, 0°55' E], 13 May 1984, *Pedrol, J. s.n.* (MA!); cerca de Sudanell, 250 m, [41°33' N, 0°34' E], 13 April 1986, *Pedrol, J.; Rodríguez, R. 1120* (MA,SALA,SEV!); a 3 km de Cervera, [41°40' N, 1°17' E], 31 May 1981, *Devesa, J.A. 1466 81* (SEV!); Cervera, [41°40' N, 1°17' E], 1 May 1981, *Castroviejo, S.; Alamillo, A.; Quirós, F.; Nieto 2340 SC* (MA!); Montsec d' Ares, brolla vers l'estació d'Ager, de FF.CC., 400 m, [42°00' N, 0°46' E], 18 May 1979, *Romo, A.M. s.n.* (BC!); Tírvia, [42°31' N, 1°15' E], 11 May 1974, *Forreny, J.E. s.n.* (BC!); **Madrid**: Jardim Botánico, [40°24' N, 3°41' W], 3 May 1944, *Fernández, M. T. mA. s.n.* (MA!); Navalcarnero, alrededores, 650 m, [40°18' N, 4°00' W], 19 April 2001, *Morales, R.; et al. 1908* (MA!); C. Universitaria, [40°24' N, 3°41' W], 30 March 1984, *Alarcon, M.L. 19* (MA!); Rozas de Puerto Real (Urbanización Entrepinos), 800 m, [40°19' N, 4°29' W], 4 May 1992, *Vargas, P. 2964* (MA!); Madrid, [40°24' N, 3°41' W], April, *Colmeiro s.n.* (MA!); [40°02' N, 3°36' W], 28 March 1852, *unclear s.n.* (MA!); [40°24' N, 3°41' W], 1916, *Cupanda s.n.* (MA!); Los Santos de La Humosa, [40°30' N, 3°15' W], 4 April 1970, *Bellot, F.; Carvallal; Ron s.n.* (MA!); Torrelodones, Los Peñascales, [40°35' N, 3°56' W], 19 April 1992, *Gabriel, J.M.; Galan 596* (MA!); Jardín Botánico, [40°24' N, 3°41' W], 4 May 1966, *Sampaio, G. s.n.* (MA!); [40°24' N, 3°41' W], *unclear s.n.* (MA!); Madrid, [40°24' N, 3°41' W], April 1925, *Aterido, A. s.n.* (MA!); Monte de "El Pardo", [40°24' N, 3°41' W], 4 May 1950, *Rodríguez, A. s.n.* (MA,RNG!); Madrid, [40°24' N, 3°41' W], *Cavanilles, A.J. s.n.* (MA!); [40°24' N, 3°41' W], *Sampaio, G. s.n.* (MA!); Villamanta, [40°18' N, 4°07' W], 12 April 1984, *Carrasco; Estrada; Monge; Romero s.n.* (MA!); San Agustín de Guadalix, 750 m, [40°37' N, 3°34' W], 26 March 1981, *Moreno Saiz, J.C. s.n.* (MA!); Soto del Real, 900 m, [40°24' N, 3°41' W], 19 May 1983, *Gómez Manzaneque, F. s.n.* (MA!); Redueña, 910 m, [40°49' N, 3°36' W], 1 May 1983, *Gómez Manzaneque, F. s.n.* (MA!); El Vellón, 870 m, [40°46' N, 3°35' W], 12 May 1984, *Gómez Manzaneque, F. s.n.* (MA!); Guadalix de la Sierra, 890 m, [40°47' N, 3°41' W], 27 April 1983, *Gómez Manzaneque, F. s.n.* (MA!); Chapineria, carretera hacia Aldea del

Fresno, 640 m, [40°23' N, 4°12' W], 13 April 1992, *Morales, R. 680 RM* (MA!); Navalagamella, antes del pueblo, 750 m, [40°28' N, 4°07' W], 20 April 1993, *Morales, R. 1110 RM* (MA!); Chapinería, carretera de km 32, entrada urbanización Los Molinillos, 540 m, [40°23' N, 4°12' W], 18 June 1992, *Morales, R. 854 RM* (MA!); Patones de Arriba, eras del pueblo, 860 m, [40°52' N, 3°29' W], 11 June 1992, *Morales, R.; Sanz, J. 835 RM* (MA!); Seseña, [40°06' N, 3°42' W], 29 May 1981, *Devesa, J.A. 1257 81* (SEV!); cercanías cementerio de La Almudena, [40°24' N, 3°41' W], 15 February 1980, *Silvestre, F. s.n.* (SEV,RNG!); Aranguéz, [40°02' N, 3°36' W], 15 April 1951, *Alston, A.H.G. 10202* (BM!); Paracuellos del Jarama, en la subida, 680 m, [40°30' N, 3°31' W], 11 June 1992, *Morales, R.; Sanz, J. 811 RM* (MA!); Arganda, [40°24' N, 3°41' W], 5 April 1924, *Lázaro, B. s.n.* (MAF!); Chamartin, [40°24' N, 3°41' W], 29 May 1924, *Mateos, R. s.n.* (MAF!); Fresnedas nitrofila entre El Boalo y Cerceda, [40°43' N, 3°55' W], 13 March 1981, *Aguilla, C.; Cantó, P.; Laorga, S.; Mata, D. s.n.* (SALA,MAF!); Chapinería, [40°23' N, 4°12' W], 21 April 1990, *Giraldez, X. s.n.* (SALA!); [40°23' N, 4°12' W], 5 May 2001, *Giraldez, X. s.n.* (SALA!); 583 m, [40°29'34" N, 3°32'20" W], 30 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3204* (AVE!); **Málaga**: Castillejos, 6 m 13 April 1926, *Vidal y López, M. 345* (BC!); **Murcia**: Lorca, Sierra del Gigante, Morro del Cocón, 950 m, [37°44' N, 2°00' W], 23 April 1997, *Castroviejo, S.; Aedo, C.; Muñoz, F.; Alvarez, I.; Velayos; et al. 14484* (MA!); Celregón, Sierra de la Puerta, [38°10' N, 1°46' W], 1 May 1982, *unclear 6722* (MA!); Carasaca, Casas de Moya, 1220 m, [38°08' N, 2°05' W], 24 April 1982, *unclear 11339* (MA!); Cehegín, Camino de Canares, 600 m, [38°06' N, 1°48' W], 19 March 1982, *unclear 11338* (MA!); San Pedro del Pinatar, Salinas del Cotorrillo, [37°50' N, 0°47' W], 2 April 1983, *Gómez Olleta s.n.* (MA!); Javali N., Huerta, R. Segura, 70 m, [37°59' N, 1°13' W], 11 April 1986, *García, R. s.n.* (MA!); Cartagena, Arenas de la Rambla de Benipilla, [37°37' N, 1°00' W], 16 December 1900, *Jiménez, F. s.n.* (MA!); Bullas, [38°03' N, 1°40' W], 25 March 1896, *Rawi, A.; Rechingen, K.H. 406* (MA!); Cádiz, San José del Valle, Sierra de las Cabras, Boca de la Foz, 200 m 600 m, [38°31' N, 1°26' W], 14 May 1979, *Diez, J.; Silvestre, S. s.n.* (SEV!); 1 m NE of La Union, 60 m, [37°37' N, 0°52' W], 7 May 1951, *Alston, A.H.G. 10991* (BM!); Lorca, 370 m, [37°40' N, 1°42' W], 28 June 1929, *Sennen, F.; Jerónimo, Hno. s.n.* (BM!); near La Union,, [37°37' N, 0°52' W], 7 May 1951, *Simpson, N.D. 51608* (BM!); Carthagène, Rambla de Benipila, [37°37' N, 1°00' W], March 1908, *Jiménez, Fr. P.; Ibañez, A. 691* (MA!); faldas del Cabezo Ventura, [37°36' N, 0°59' W], 13 January 1901, *Jiménez, Fr. P. s.n.* (MA!); Castelléfos [?], 76 m, [37°40' N, 1°05' W], 13 November 1926, *Vargas, P.*

345 (MA!); de Murcia a Cartagena, en el desvio a los Valladolides, [37°47' N, 1°07' W], 4 March 1982, *López, G.; Barra, A.; Bayón, E. 2767 GF* (MA!); Cartagena, Sierra de La Union, [37°37' N, 0°52' W], 28 April 1902, *Pau, C. s.n.* (MA!); Sierra Espuña, casas de Malvariche, 860 m, [37°52' N, 1°34' W], 29 October 2005, *Aedo, C. 12313* (MA!); Cartagena, près de la ville, [37°36' N, 0°59' W], June 1902, *Jimenez s.n.* (COI!); faldas del cabezo ventura, [37°36' N, 0°59' W], 13 January 1901, *Jimenes, F. s.n.* (COI!); Murcie, Lorca, sites incultes, [37°40' N, 1°42' W], March 1930, *Jerónimo, H. 7344* (BC!); Cartagena, [37°36' N, 0°59' W], 16 March 1850, *Bourgeau, E. 728* (K!); Bulliois, [37°59' N, 1°07' W], 25 March 1896, *Gandoger, M. 408* (K!); Cartagena, Rambla Benipila, [37°36' N, 0°59' W], March 1908, *Sennen, F. 691* (BC!); Regno Murcico, Puerto Ambrosos, [37°59' N, 1°07' W], 18 April 1961, *Bolos, A.; Vigo, J. s.n.* (BC!); Cartagena, Atamana, [37°36' N, 0°59' W], April 1947, *Bras s.n.* (BC!); Cartagena, barrio de la Concepcion hacia La Atalaya, 30SXG76, 100 m, [37°36' N, 0°59' W], 25 April 2002, *Molero Briones, J. s.n.* (BCN!); Cartagena, [37°36' N, 0°59' W], 13 January 1901, *unclear s.n.* (MAF!); Cartagena, Cabeza Beaza, [37°36' N, 0°59' W], May 1953, *Esteve 20* (SANT!); 5,3 km W mSW de Calnegre, bermas da D m20, 338 m, [37°30'22" N, 1°27'41" W], 3 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3214* (AVE!); **Málaga:** Nerja, 160 m, [36°44' N, 3°52' W], 23 April 1999, *Elorza, M.S. s.n.* (MA!); Málaga, terrenos incultos del Arroyo de Jaboneros, en El Palo, [36°43' N, 4°21' W], 9 May 1946, *Muñoz Medina, J. s.n.* (SEV!); entre Alora y Pizarra, [36°48' N, 4°42' W], 28 December 1970, *Dominguez, E.; Galiano, E.F.; Talavera, S. s.n.* (SEV!); El Hacho de Alora, [36°48' N, 4°42' W], 28 May 1966, *Valdés, B. s.n.* (SEV!); above San Martin de Tesnilla, 270 m, [36°43' N, 4°25' W], 6 March 1979, *Molesworth Allen, B. 11106* (SEV!); Rincón de la Victoria, [36°43' N, 4°18' W], 20 January 1983, *Silvestre, S.; Valdés, B. s.n.* (SEV!); entre Alhaurin de la Torre et la mer, 150 m, [36°40' N, 4°33' W], 22 April 1969, *Fac. Sci. Toulouse, Serv. Bot. 695* (MA!); Serrania de Ronda, [36°44' N, 5°03' W], 23 April 1970, *Segura Zubizarreta, A. 10476* (MA!); Málaga, cerro de San Antón, [36°43' N, 4°25' W], 6 April 1951, *Vicioso, C. 613* (MA,MA!); Málaga, Nerja, cercanias de las "Cuevas de Nerja", en Maro, [36°46' N, 3°50' W], 17 April 1984, *Fernández Alonso, J.L.; Guillén, A.; et al. s.n.* (MA!); [36°46' N, 3°50' W], 17 April 1984, *Fernández Alonso, J.L.; Guillén, A.; et al. s.n.* (MA!); Tolox, [36°42' N, 4°54' W], 15 May 1952, *Roivainen, H. s.n.* (COI!); in agro Malacitano, [36°43' N, 4°25' W], March 1936, *Laza, M. s.n.* (COI!); Montes de Málaga, 5 km N of Matanza on road to Colmenar, 700 m, [36°54' N, 4°20' W], 14 April 1980, *Miles, J.C.; Phillipson, P.B.; Sinnreich, G.M.; Williams, R.S.*

139 (BM,RNG!); Málaga, [36°43' N, 4°25' W], 8 April 1876, *Winkler, M. s.n.* (K!); environs de Málaga, [36°43' N, 4°25' W], 1875, *Lebert s.n.* (K!); Málaga, [36°43' N, 4°25' W], April 1825, *Salzmann, P. s.n.* (K!); Maquis between Marbella and Ojén, 450 m, [36°31' N, 4°53' W], 11 April 1972, *Heywood, V.H.; Moore, D.M.; Bramwell, D.; et al. 16* (RNG!); Málaga, terrenos incultos del Arroyo de Jaboneros, en El Palo, [36°43' N, 4°21' W], 9 May 1946, *Muñoz Medina, J. 296* (MA,BCN,SANT,SANT,K,MA!); ruta forestal, JB la Concepcion, [36°43' N, 4°25' W], 8 April 2010, *Sánchez, P.S.; Varela, T.S. 1542* (SALA,SANT!); Alora, na saída para Carratraca, 254 m, [36°50'04" N, 4°42'33" W], 27 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3202 a* (AVE!); na saída para Carratraca, 254 m, [36°50'04" N, 4°42'33" W], 27 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3202 b* (AVE!); **Navarra:** Artajona, [42°35' N, 1°46' W], 20 March 1987, *Aizpuru, I. 19725* (MA,ARAN!); Fitero, Baños de Fitero, [42°03' N, 1°51' W], 28 April 1985, *Aizpuru, I. 19724* (MA,ARAN!); Castejón de Navarra, [42°10' N, 1°42' W], 16 April 1960, *Segura Zubizarreta, A. 10472* (MA!); **Ourense:** Lobios, A Vila, 540 m, [42°25' N, 7°31' W], 20 January 2011, *Pulgar, I. s.n.* (SANT!); Lobios, Fondevilla, 370 m, [42°25' N, 7°31' W], 21 March 1996, *Pulgar, I.; Ortiz, S. s.n.* (SANT!); Castro de São Tome (Ourense), 230 m, [42°21' N, 7°14' W], 11 February 2001, *Romero, A.R.; Jesus, J.; Garcia, V.R. 154* (SANT!); Futada a otrigal desde Sobradello (Carballeda, Ourense), 650 m, [42°35' N, 8°47' W], 16 March 1983, *Ortiz, S. s.n.* (SANT!); Ourense, Carballeda, Sobradello. Thero mAirion en un monticulo al lado de la via del tren, 350 m, [42°32' N, 8°00' W], 27 May 1983, *Ortiz, S. s.n.* (SANT!); Ourense, Carballeda, Sobradello, al lado de la via del tren, 350 m, [42°32' N, 8°00' W], 27 May 1983, *Ortiz, S. s.n.* (SANT!); Ourense, Carballeda, entre Sobradello y Vila de quinta, 350 m, [42°32' N, 8°00' W], 14 April 1983, *Ortiz, S. s.n.* (SANT!); Verin, Feces de abaixo, [41°56' N, 7°26' W], 30 March 1989, *Bujan, M. s.n.* (SANT!); Verin, Mandin, [41°56' N, 7°26' W], 5 August 1989, *Bujan, M. s.n.* (SANT!); **Pontevedra:** Aldán, Cangas de Morrazo, [42°17' N, 8°49' W], 10 April 1971, *Castroviejo, S. s.n.* (MA!); Cangas de Morrazo, [42°26' N, 8°38' W], 8 April 1971, *Castroviejo, S. s.n.* (MA!); Bayona, 0 m, [42°07' N, 8°51' W], 20 June 35, *Schafer, B. s.n.* (K!); Vilanova de Arosa, Baion, [42°34' N, 8°50' W], 25 July 1989, *Bujan, M. s.n.* (SANT!); **Salamanca:** Valedelageve, 620 m, [40°22' N, 5°59' W], 17 February 1995, *Perez, J.B. s.n.* (SALA!); Castellanos de Villiquera, Arroyo de la Encina tesos a la izquierda de la carretera SA mZa con dirección a Zamora, [41°03' N, 5°41' W], 24 June 1976, *Tapiador, M.C. s.n.* (SALA!); Guijuelo, [40°33' N, 5°40' W], 14 March 1987, *Rico, E.; Serradilla, J. s.n.*

(SALA!); Montemayor del Rio, [40°21' N, 5°53' W], 30 January 1983, *Rico, E.; Guillén, A.; Herrero, F. s.n.* (SALA!); Navacarros, [40°24' N, 5°42' W], 5 February 1982, *Herrero, F. s.n.* (SALA!); Arapiles, Teso de las Zorreras, [40°54' N, 5°38' W], 8 March 1983, *Orcajo, F. s.n.* (SALA!); Villarino de los Aires, [41°16' N, 6°28' W], 1 May 1976, *Sánchez, J. s.n.* (SALA!); Embarcadero de Fregeneda, [40°58' N, 5°39' W], 6 March 1976, *Amich, F. s.n.* (SALA!); Puerto Seguro, [40°49' N, 6°45' W], 22 April 1976, *Rico, E. s.n.* (SALA!); Dehesa de Alba, Alba de Tormes, [40°49' N, 5°31' W], 27 April 1974, *Amich, F. s.n.* (SALA!); La Garcesa, Cabrerizos, [40°59' N, 5°36' W], 28 February 1974, *Rico, E. s.n.* (SALA!); San Esteban de la Sierra, [40°30' N, 5°54' W], 16 April 1971, *Fernández Diez, F.J. s.n.* (SALA!); Valero de la Sierra, [40°58' N, 5°39' W], 9 April 1971, *Fernández Diez, F.J. s.n.* (SALA!); Sequeros, [40°31' N, 6°01' W], 8 April 1971, *Fernández Diez, F.J. s.n.* (SALA!); La Fregeneda, [40°59' N, 6°52' W], 16 March 1968, *Casaseca, B. s.n.* (SALA!); Pelabravo. TL83, [40°56' N, 5°34' W], 7 April 1990, *Pastor, A. s.n.* (SALA!); **Segovia**: Sepúlveda, 1000 m, [41°18' N, 3°45' W], 9 April 1983, *Romero, T. s.n.* (MA!); Pedraza, a 500 m hacia La Velilla, 1060 m, [41°08' N, 3°48' W], 27 April 1985, *Gracia, R. 246* (MA!); Sepúlveda, [40°44' N, 6°19' W], 4 May 1985, *Romero, T. s.n.* (SALA!); **Sevilla**: Mairena del Alcor, [37°22' N, 5°45' W], 29 February 1980, *Gallego, M.J.; Romero Zarco, C.; Valdés, B. s.n.* (BM,BCN!); El Ronquillo, Pantano de la Minilla, 150 m 160 m, [37°43' N, 6°10' W], 16 March 1968, *Silvestre, S.; Valdés, B. 1025 68* (MA!); entre Gerona y Olivaros, [37°32' N, 6°09' W], 12 March 1968, *Galiano, E.F.; Silvestre, S.; Valdés, B. 1008 68* (MA,SEV!); Morón de la Frontera, Pico Esparteros, [37°08' N, 5°27' W], 21 May 1980, *Diez, J.; Luque, T.; Valdés, B. 643 80* (MA,SEV!); Dos Hermanas, [37°17'04" N, 5°55'27" W], 23 February 1915, *Fragoso s.n.* (MA!); Camino de San Juan, [37°22'38" N, 5°59'13" W], 22 February 1915, *Fragoso s.n.* (MA!); entre Ecija e Hererra, Rio Genil, [37°32' N, 5°05' W], 29 February 1980, *Gallego, M.J.; Romero Zarco, C.; Valdés, B. 102 80* (MA,SEV!); alrededores de Mairena del Alcor, [37°22' N, 5°45' W], 26 April 1975, *Ruíz de Clavijo, E. s.n.* (MA!); alrededores de Alcalá de Guadaira, [37°20' N, 5°50' W], 14 February 1975, *Ruíz de Clavijo, E. s.n.* (MA!); [37°20' N, 5°50' W], 6 March 1975, *Ruíz de Clavijo, E. s.n.* (SEV!); c 40 km NNW of Pantano de la Minilla, [37°40' N, 6°11' W], 29 March 1969, *Heywood, V.H.; Moore, D.M.; et al. 296 A* (SEV,RNG!); Castilleja de Guzmán, [37°25' N, 6°03' W], 22 November 1972, *Cabezudo, B.; Valdés, B. 27 72* (SEV!); El Garrobo mGerena, km 4, [37°32' N, 6°09' W], 1 April 1979, *Diez, J.; Luque, T. s.n.* (SEV!); San Nicolás del Puerto, Canal del Viar, [38°00' N, 5°39' W], 20 March 1970, *Dominguez,*

E.;Silvestre, S.; Pastor, J. 11 70 (SEV,SALA!); Morón de la Frontera, Pico Esparteros, [37°08' N, 5°27' W], 17 November 1978, Guerrero, M.R.;Fernández, I. s.n. (SEV!); Coripe; Sierra, [36°58' N, 5°26' W], 5 January 1984, Martin;et al. s.n. (SEV!); Constantina, Arroyo de las Truchas, [37°52' N, 5°37' W], 11 November 1984, López, I.;Serveto, J.A.; Vazquez; C. s.n. (SEV!); San Nicolás del Puerto, [38°00' N, 5°39' W], 7 April 1984, Aguilera, I.;Arjona, S.;et al. s.n. (SEV!); Constantina, alrededores del pueblo, [37°52' N, 5°37' W], 7 April 1984, López, I.;Serveto, J.A.; Vazquez; C. s.n. (SEV!); Venta del Aljarafe, [37°22'38" N, 5°59'13" W], 7 March 1975, Candau, P.;Soler, A. 502 75 (SEV,SEV!); Mairena del Alcor, Calizas, [37°22' N, 5°45' W], 29 February 1980, Gallego, M.J.;Romero Zarco, C.; Valdés, B. s.n. (SEV!); [37°22' N, 5°45' W], 29 February 1980, Gallego, M.J.;Romero Zarco, C.; Valdés, B. s.n. (SEV!); Entre Herrera y Ecija, Las Ceñuelas, Terrenos alubiales, cerca del rio Genil, [37°32' N, 5°05' W], 1 April 1980, Luque, T.;Talavera, S.; Valdés, B. 535 80 (SEV!); Ecija, Cunetas, [37°32' N, 5°05' W], 29 February 1980, Gallego, M.J.;Romero Zarco, C.; Valdés, B. 146 80 (SEV!); Alcalá de Guadaira, Tierras rojas, [37°20' N, 5°50' W], 11 March 1980, Blanco, M.J.;Romero Zarco, C.; Valdés, B. 190 80 (SEV!); Herrera, Arroyo Hondo, [37°19' N, 5°32' W], 1 April 1980, Luque, T.;Talavera, S.; Valdés, B. 466 80 (SEV!); entre Castilblanco y El Pedroso, Hacienda de los Melonares, 280 m, [37°42' N, 5°53' W], 18 May 1968, Galiano, E.F.;Valdés, B. 1726 68 (SEV!); entre Aznalcazar y Bollullos de la Mitación, [37°18'22" N, 6°14'53" W], 6 April 1972, Montero, J.M.;Ramos, E. s.n. (SEV!); entre Puebla del Rio y Venta de la Cruz, [37°15'59" N, 6°03'53" W], 6 March 1969, Silvestre, S.;Valdés, B. s.n. (SEV!); Entre El Arahal y Paradas, [37°16' N, 5°33' W], 1 April 1980, Luque, T.;Talavera, S.; Valdés, B. 428 80 (SEV!); Pantano de la Minilla, [37°40' N, 6°11' W], 1 April 1979, Diez, J.;Luque, T. s.n. (SEV!); El Gandul, [37°20' N, 5°47' W], 26 February 1974, Candau, P.;Soler, A.; González, P. s.n. (SEV!); El Viso del Alcor, [37°23' N, 5°43' W], 11 March 1980, Romero, C.;Valdés, B. 222 80 (SEV!); entre El Coronil y Montellano, [37°05' N, 5°38' W], 12 March 1977, Gallego, M.J.;Ruíz de Clavijo, E.; Talavera, S. s.n. (SEV!); entre Morón y Coripe, [37°08' N, 5°27' W], 26 November 1976, Gallego, M.J.;Ruíz de Clavijo, E.; Talavera, S. s.n. (SEV!); [37°08' N, 5°27' W], 14 January 1977, Ruíz de Clavijo, E. s.n. (SEV!); entre Alcalá de Guadaira y Mairena del Alcor, [37°20' N, 5°50' W], 26 February 1975, Ruíz de Clavijo, E. s.n. (SEV!); Sanlucar la Nayar, [37°23' N, 6°12' W], 11 January 1966, Galiano, E.F.;Novo, J. s.n. (SEV!); Venta del Cruce, [37°22'38" N, 5°59'13" W], March 1976, Gallego, M.J.;Garcia, I.; Ruíz de Clavijo, E. s.n. (SEV!); Herrera, Arroyo Hondo, [37°22'

N, 4°51' W], 1 April 1980, *Luque, T.; Talavera, S.; Valdés, B.* 498 80 (SEV!); Estepa, Pico Paunero, 640 m, [37°18' N, 4°54' W], 19 April 1968, *Silvestre, S.* 1405 68 (SEV!); Universidad Laboral, [37°22'38" N, 5°59'13" W], 12 March 1980, *Luque, T.; Valdés, B. s.n.* (SEV!); Las Cabezas de San Juan, Finca Torralba, [36°59' N, 5°56' W], 10 April 1975, *Silvestre, S.; Gallego, M.J.* 626 75 (SEV!); Dos Hermanas, La Corchuela, [37°14'35" N, 5°58'17" W], 10 April 1975, *Galiano, E.F.; Silvestre, S.* 643 75 (SEV!); entre Bormujos y Bollullos de la Mitación, [37°22' N, 6°04' W], 7 March 1975, *Candau, P.; Soler, A.* 528 75 (SEV!); Burguillos, [37°35' N, 5°58' W], 23 March 1969, *Galiano, E.F.; Valdés, B.* 237 69 (SEV!); Castillo de las Guardas, [37°22'38" N, 5°59'13" W], 17 March 1978, *Cabezudo, B.; Rivera, J.* 873 78 (SEV!); Salida dos Hermanas hacia Utrera, Colonia San Hermenegildo, [37°11'10" N, 5°47'12" W], 3 August 1979, *Portillo, E.; et al. s.n.* (SEV!); Venta del Cruce, [37°22'38" N, 5°59'13" W], 29 March 1979, *Devesa, J.A.; Rivera, J.; Valdés, B.* 215 79 (SEV!); alrededores de Camas, [37°24' N, 6°02' W], 1 April 1967, *Galiano, E.F. s.n.* (SEV!); Alcalá de Guadaira, [37°20' N, 5°50' W], 4 February 1978, *Pastor, J. s.n.* (SEV!); entre Osuna y El Saucejo, arroyo Peinado, [37°14' N, 5°07' W], 10 April 1969, *Galiano, E.F.; et al. s.n.* (SEV!); entre Osuna y El Saucejo, [37°04' N, 5°06' W], 10 April 1969, *Galiano, E.F.; et al. s.n.* (SEV!); entre Montellano y Coripe, [37°00' N, 5°34' W], 12 March 1977, *Gallego, M.J.; Ruíz de Clavijo, E.; Talavera, S. s.n.* (SEV!); Algámitas, [37°01' N, 5°09' W], 20 April 1975, *Ramos, E. s.n.* (SEV!); Algámitas, Peñón de Algámitas, [37°01' N, 5°09' W], 20 April 1975, *Ramos, E. s.n.* (SEV!); alrededores de Alcalá de Guadaira, [37°20' N, 5°50' W], 14 February 1975, *Ruíz de Clavijo, E. s.n.* (SEV!); Alcalá de Guadaira, [37°20' N, 5°50' W], 16 January 1974, *Candau, P.; Soler, A. s.n.* (SEV!); entre Puebla de Cazalla y Morón de la Frontera, [37°14' N, 5°19' W], 18 April 1972, *Montero, J.M.; Ramos, E. s.n.* (SEV!); Peñón de Algámitas, [37°01' N, 5°09' W], 21 May 1980, *Diez, J.; Luque, T.; Valdés, B.* 859 80 (SEV!); Villanueva del Río, cota Cebrón y alrededores, [37°37' N, 5°41' W], 9 February 1980, *Gómez, J.M. s.n.* (SEV!); entre Morón y Pruna, Dehesa Reina Marin, [37°08' N, 5°27' W], 12 May 1976, *Ruíz de Clavijo, E. s.n.* (SEV!); entre Estepa y Osuna, [37°18' N, 4°54' W], 18 April 1972, *Montero, J.M.; Ramos, E. s.n.* (SEV!); Alcalá de Guadaira, carretera de El Arahal, [37°20' N, 5°50' W], 1 April 1980, *Luque, T.; Talavera, S.; Valdés, B.* 368 80 (SEV!); Alcalá de Guadaira, [37°20' N, 5°50' W], 13 May 1981, *Gallego, M.J.; Pastor, J. s.n.* (SEV!); entre Pilas e Azuaga, [37°18'10" N, 6°17'54" W], 29 December 1980, *Devesa, J.A. s.n.* (SEV!); Carretera Lora, Constantina, [37°52' N, 5°37' W], 1981, *Escalza; López, M.; Luque, R. s.n.* (SEV!); Alcalá de Guadaira,

hacia Morón, km 6, [37°20' N, 5°50' W], 9 March 1974, *Candau, P.;González* 248 74 (SEV!); Castilleja de Guzmán, [37°25' N, 6°03' W], 8 March 1969, *Galiano, E.F.;et al.* 83 69 (SEV!); entrada a El Ronquillo, km 434, [37°43' N, 6°10' W], 12 March 1974, *Candau, P.;Soler, A.; González, P.* 265 74 (SEV!); Alcalá de Guadaira, carretera de El Arahal, [37°20' N, 5°50' W], 1 April 1980, *Luque, T.;Talavera, S.; Valdés, B.* 369 80 (MA,SEV,SALA!); Carmona, Alcores, [37°28' N, 5°38' W], 29 February 1980, *Gallego, M.J.;Romero Zarco, C.; Valdés, B.* 162 80 (MA,SEV!); Mairena del Alcor, [37°22' N, 5°45' W], 29 February 1980, *Gallego, M.J.;Romero Zarco, C.; Valdés, B.* 67 (MA,RNG,BCN,COI,SALA,GDA,SANT!); El Ronquillo, km 770 de la carretera N m630, 350 m, [37°43' N, 6°10' W], 29 March 1989, *Vargas, P.;Guzmán; Luceño, M.; Martínez Escribano* 2813 PV (MA!); [37°20' N, 5°24' W], *Pau, C. s.n.* (MA!); Sierra de Estepa, [37°18' N, 4°54' W], 21 April 1973, *Heywood, V.H.;Moore, D.M.; Bramwell, D.* 36 (RNG!); Sevilla, Moronde de la Frontera, Pico Esparteros, [37°08' N, 5°27' W], 16 April 1970, *Heywood, V.H.;Moore, D.M.; et al.* 536 (RNG!); junto ao desvio da autovia M laga mSevilha, para Mairena del Alcor, 94 m, [37°18'21" N, 5°43'19" W], 5 April 2007, *Silveira, P.;& Carqueja MJM* 2984 (AVE!); entre Mairena del Alcor e Alcal de Guadaira, 92 m, [37°21'41" N, 5°49'01" W], 5 April 2007, *Silveira, P.;& Carqueja MJM* 2985 (AVE!); 92 m, [37°21'41" N, 5°49'01" W], 5 April 2007, *Silveira, P.;& Carqueja MJM* 2986 a (AVE!); **Soria**: Arcos de Jalon, [41°13' N, 2°16' W], 4 April 1962, *Segura Zubizarreta, A.* 10471 (MA!); **Tarragona**: Comarruga, [41°13' N, 1°32' E], 1 March 1986, *Ascaso, J.;Pedrol, J. s.n.* (MA!); Alt Camp. Puigpelat, [41°17' N, 1°18' E], *Banau, J.;Andreu s.n.* (BC!); A Sul desta cidade, 43 m, [40°55'54" N, 0°50'12" E], 2 April 2012, *Silveira, P.;Gonçalves, A.C.R.S.* 3210 (AVE!); **Teruel**: Sierra de Albarracin,?Zapador?, [40°28' N, 1°30' W], *Pau, C. s.n.* (MA!); La Estrella (Mosqueruela), 800 m, [40°21' N, 1°06' W], 11 September 1987, *Fabregat, C. s.n.* (VAL!); **Toledo**: Seseña, Barrancos de la Cuesta de la Reina, 600 m, [40°06' N, 3°42' W], 11 May 1993, *Morales, R.;et al.* 1152 (MA!); Puebla de Montalbán, 400 m, [39°52' N, 4°21' W], 24 March 1994, *Navarro, P. s.n.* (MA!); Alpuebrega, [39°50' N, 4°17' W], July 1914, *unclear s.n.* (MA!); Talavera de la Reina, 400 m, [39°57' N, 4°50' W], 15 February 1978, *Segura Zubizarreta, A.* 16800 (MA!); de Yuncillillas a Bargas, 540 m, [40°01' N, 3°59' W], 20 May 1979, *unclear s.n.* (MA!); Ontígola, [40°00' N, 3°34' W], 19 March 1966, *Bellot, F.;Monasterio s.n.* (MA!); Maqueda, [40°04' N, 4°22' W], 5 May 1983, *Castroviejo, S.;Bayón, E.; Coello, P.; Nieto, G.; Sanches de Molina, J.* 8166 SC (MA!); **Valencia**: Luchente, 250 m, [38°56' N, 0°21' W], 10 February 1984, *Mateo,*

G.; *Figueirola, R. s.n.* (MA!); Valencia, [39°28' N, 0°22' W], 14 May 1969, *Segura Zubizarreta, A. 10474* (MA!); Sueca, [39°12' N, 0°19' W], 2 March 1987, *Mateo, G. s.n.* (MA!); Utiel, Casas de Costa, 800 m, [39°34' N, 1°12' W], May 1986, *Garcia, E. s.n.* (MA!); Cueva Santa, [38°53' N, 0°43' W], April 1897, *Pau, C. s.n.* (MA!); Jativa, [38°59' N, 0°31' W], 3 April 1921, *Pau, C. s.n.* (MA!); Olocau a Bétera, [39°42' N, 0°32' W], 2 March 1985, *Mateo, G.; Crespo, B. s.n.* (MA!); Sagunto?, [39°41' N, 0°16' W], 7 April 1899, *Pau, C. s.n.* (MA!); Alaeaut, próximo la Taloia in saipino retotae, [39°28' N, 0°22' W], 16 April 1957, *Bolos, O.; Marelaus, F. s.n.* (BC!); 15 m NW of Cañada, 100 m, [38°40' N, 0°49' W], 21 March 1965, *Wadsworth, R. M.; et al. 17* (RNG!); 10 m SW of Torrente, [39°26' N, 0°28' W], 22 March 1965, *Wadsworth, R. M.; et al. 54* (RNG!); above Cullera, 200 m, [39°10' N, 0°15' W], 23 April 1982, *Akeroyd, J.R.; Goyder; Jury 103* (RNG!); in *Hordeion leporini* Br. Bl. 1947, Paterna (Valencia), [39°30' N, 0°26' W], 28 March 1969, *Malagarriga, H.T. 3029 745* (BC!); Callosa de Segura, Sierra de Callosa, Barranco de En Medio XH8421, 250 m, [38°08' N, 0°52' W], 30 March 1999, *Serra, L.; Perez, J. s.n.* (ABH!); Elche, Acequia Ancha por Pda. Ferriol YH0041, 100 m, [38°15' N, 0°42' W], 5 May 1992, *Lledo, M.D.; Crespo, M.B. s.n.* (ABH!); Elche, Pda. Ferriol YH0041, 100 m, [38°15' N, 0°42' W], 14 March 1991, *Crespo, M.B.; Lledo, M.D. s.n.* (ABH!); na A7 entre Graveila e Castellç de la Ribera, 46 m, [39°05'19" N, 0°32'19" W], 2 April 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3212* (AVE!); **Valladolid:** Valdestillas, alrededores del rio Adaja, [41°28' N, 4°46' W], 6 April 2002, *Lázaro Bello, J.A. s.n.* (MA!); [41°28' N, 4°46' W], 23 March 2003, *Lázaro Bello, J.A. s.n.* (MA!); Castronuño, Las Cocineras, [41°23' N, 5°16' W], 20 April 1988, *Balbas, A.G. s.n.* (SALA!); Renedo de Esgueva, 850 m, [41°39' N, 4°43' W], 1 April 2000, *Bello, J.A. s.n.* (SALA!); nas margens arenosas do Rio Adaja, 700 m, [41°29'23" N, 4°46'09" W], 30 March 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3205* (AVE!); **Vizcaya:** Miravalles, [43°11' N, 2°54' W], 12 February 1913, *Harman Elías, Hno s.n.* (MA!); **Zamora:** Almendra, [41°35' N, 5°55' W], 10 June 1979, *Sánchez Rodríguez, J.A. s.n.* (MA,SALA!); [41°30' N, 5°45' W], 10 June 1979, *Rodríguez, J.A.S. s.n.* (SALA!); Pino, Puente Requejo, [41°35' N, 6°07' W], 23 May 1981, *Navarro, F.; Valle, C.J. s.n.* (SALA!); Pereruela, San Roman de los Infantes, salto del Porvenis, 600 m, [41°25' N, 5°52' W], 20 October 2001, *Bariego, P. PB 493* (SALA!); Fonfria, Castro de Alcañics, salto de Castro, 640 m, [42°33' N, 6°19' W], 25 November 2001, *Bariego, P. PB 492* (SALA!); Valderrey, 675 m, [42°24' N, 6°01' W], 5 March 2002, *Bariego, P. PB 1347* (SALA!); Toro, Las Bodegas, [41°31' N, 5°24' W], 2 March 1990, *Garcia Rios, R. s.n.* (SALA!); Valcabadino, [41°30' N, 5°45' W], 17

March 1990, *Garcia Rios, R. s.n.* (SALA!); Cerro Albilleras, [41°30' N, 5°45' W], 17 March 1990, *Garcia Rios, R. s.n.* (SALA!); Almaraz de Duero, Rita Simon, [41°28' N, 5°55' W], 17 March 1990, *Garcia Rios, R. s.n.* (SALA!); Abezames, Membrillas, [41°30' N, 5°45' W], 24 March 1990, *Garcia Rios, R. s.n.* (SALA!); Muelas del Pan, Valdemolinos, [40°31' N, 5°25' W], 25 March 1990, *Garcia Rios, R. s.n.* (SALA!); La Aldea, [42°54' N, 3°32' W], 13 April 1990, *Garcia Rios, R. s.n.* (SALA!); Moruella de los Infanzones, [41°30' N, 5°45' W], 14 April 1990, *Garcia Rios, R. s.n.* (SALA!); Coreses, Calderon, [41°33' N, 5°37' W], 15 April 1990, *Garcia Rios, R. s.n.* (SALA!); Aspariegos, Las Cabecinas, [41°41' N, 5°36' W], 10 May 1990, *Garcia Rios, R. s.n.* (SALA!); Venialbo, [41°23' N, 5°32' W], 9 June 1981, *Giraldez, X. s.n.* (SALA!); Fuentesauco, [41°14' N, 5°30' W], 6 April 1982, *Giraldez, X. s.n.* (SALA!); **Zaragoza:** Calatayud, [41°21' N, 1°38' W], *Vicioso, B. s.n.* (MA!); [41°21' N, 1°38' W], April 1908, *Vicioso, B. s.n.* (MA!); Osera, [41°32' N, 0°35' W], 14 June 1973, *Segura Zubizarreta, A. 10681* (MA!); Calatayud, [41°21' N, 1°38' W], March 1988, *Campinel 62* (VAL!); Rio Muerva, 230 m, [41°38' N, 0°53' W], 9 March 1994, *Alarma, M. s.n.* (VAL!); **PORTUGAL. Algarve:** Algarve [37°01' N, 7°56' W], May 1885, *Guimarães, J. d'A. s.n.* (COI!); Tavira, Santiago [...], [37°07' N, 7°39' W], 18 March 1982, *Gomes Pedro, J.; Simões, J.P. 22890* (LISI!); Castro Marim, reserva entre Castro Marim e Monte Francisco, à beira da estrada, [37°13' N, 7°26' W], 13 December 1977, *Lousã, M.; Monjardino, J. 682* (LISI!); Vila Real de Santo António, Vila Nova da Cacela, perto da Silveira (a E de Montinho), [37°12' N, 7°25' W], 15 May 1991, *Lousã, M.; Costa, J.C. s.n.* (LISI!); Aljezur, Bordeira, Foz da Ribeira da Carrapateira, [37°11' N, 8°54' W], 15 June 1988, *Espírito Santo, M.D. s.n.* (LISI!); Castro Marim, Lezíria da Carrasqueira, sapal da Companhia, [37°13' N, 7°26' W], 19 March 1982, *Gomes Pedro, J.; Simões, J.P. 22961* (LISI!); Lagoão, a 7 km de Olhão, estrada para Moncarapacho, [37°02' N, 7°50' W], 1 March 1985, *Moura, A.R. 2731* (MA,COI!); Loulé, estrada para S. Brás de Alportel, São Romão, [37°09' N, 7°53' W], 23 April 1979, *Malato-Beliz, J.V.C.; Guerra, J.A. 15426* (MA!); Serra de Monchique, entre Monchique e Casais, Cai-Logo, Ribeira a E, [37°19' N, 8°33' W], 25 October 1978, *Malato-Beliz, J.V.C.; Guerra, J.A. 15079* (MA!); Miradouro do Caldeirão, [37°42' N, 8°21' W], 24 April 1968, *Galiano, E.F.; et al. 6152* (SEV!); [37°13' N, 7°26' W], April 1888, *Moller, A. 474* (BM,COI!); Vila do Bispo, miradouro do Castelejo, sobranceiro à Praia do Castelejo, para N do Cabo de São Vicente, [37°06' N, 8°57' W], 10 February 1964, *Santos Junior s.n.* (PO!); Loulé, Barranco do Velho, [37°08' N, 8°02' W], 8 May 1963, *Rozeira, A.; Koepf, K.; Costa, G.*

s.n. (PO!); Loulé, Quarteira, [37°04' N, 8°06' W], 8 May 1963, *Rozeira, A.; Koepp, K.; Costa, G. s.n.* (PO!); Alportel, São Brás de Alportel, [37°09' N, 7°53' W], 7 May 1963, *Rozeira, A.; Koepp, K.; Costa, G. s.n.* (PO!); Loulé, Boliqueime, estrada para Portimão, [37°08' N, 8°09' W], 18 June 1962, *Rozeira, A.; Koepp, K.; Costa, G. s.n.* (PO!); Caldas de Monchique, [37°19' N, 8°33' W], 25 April 1956, *Malato-Beliz, J.V.C.; et al. s.n.* (PO!); Portimão, colinas de Arge, [37°10' N, 8°32' W], 18 December 1972, *Malato-Beliz, J.V.C.; Guerra, J.A. 11913* (MA!); Serra do Caldeirão, próximo do miradouro, [37°42' N, 8°21' W], 24 April 1968, *Malato-Beliz, J.V.C.; et al. 6152* (MA!); Caldas de Monchique, [37°19' N, 8°33' W], 25 April 1956, *Malato-Beliz, J.V.C.; et al. 3106* (MA!); Tavira, [37°07' N, 7°39' W], 8 May 1903, *Pau, C. s.n.* (MA!); [37°07' N, 7°39' W], June 1887, *Moller, A. s.n.* (COI!); [37°01' N, 7°56' W], August 1882, *Guimarães s.n.* (COI!); [3°14' N, 8°11' W], June 1887, *Moller, A. s.n.* (COI!); [37°14' N, 8°03' W], June 1887, *Moller, A. s.n.* (COI!); [37°06' N, 8°40' W], *Sampaio, G. 4452* (COI!); [37°08' N, 8°02' W], June 1888, *Fernandes, J. s.n.* (COI!); [37°06' N, 8°21' W], 4 April 1966, *Moura, A.R. 492* (COI!); prope Faro, Algarbia, Lusitania, [37°01' N, 7°56' W], May 1885, *Guimarães 2753* (K!); Estrada de Lagos-Sagres, à saída de Lagos, [37°06' N, 8°40' W], 23 March 1964, *Fernandes, A.; Fernandes, R.; Matos, J. 8992* (BR,COI!); S coast, between Lagos and Cape St. Vicente, Salema, [37°04' N, 8°49' W], 18 March 1986, *Maxted, J. 28* (RNG!); Portimão, [37°08' N, 8°32' W], 16 April 1921, *Rahn, K. 384* (C!); Alto Alentejo: [38°34' N, 7°54' W], May 1882, *Daveau, J. nc 65* (COI!); Alto Alentejo [39°17' N, 7°26' W], June 1891, *Moller, A. s.n.* (COI!); Alto Alentejo Vendas Novas, 146 m, [38°40'38" N, 8°27'19" W], March 1930, *Basto, H. s.n.* (LISI!); Alto Alentejo Viana do Alentejo, Alcáçovas, Herdade da Casa Nova, [38°24' N, 8°09' W], 21 April 1955, *Mendes, J.R.R. s.n.* (LISI!); Alto Alentejo Estremoz, arredores, [38°51' N, 7°35' W], 20 January 1957, *Ramos, O. s.n.* (LISI!); Alto Alentejo Redondo, Montoito, Herdade da Casa Alta, 233 m, [38°30' N, 7°36' W], 17 May 1956, *Chican, J. s.n.* (LISI!); Alto Alentejo Évora, Graça do Divor, Herdade do Divor da Figueira, [38°39' N, 7°59' W], 8 May 1956, *Sousa, J.V.S.Q. s.n.* (LISI!); Alto Alentejo Vila Viçosa, Sesmo da Saravisea, [38°47' N, 7°25' W], 9 May 1949, *Braga, M.C. s.n.* (LISI!); Alto Alentejo Sousel, Tapada de Vencerei, [38°57' N, 7°40' W], 8 April 1953, *Marchante, A.P. s.n.* (LISI!); Alto Alentejo Elvas, a meio caminho da estrada S. Vicente - Sta. Eulália, 1,5 km W, [38°53' N, 7°10' W], 21 May 1957, *Barradas, J.T.A. s.n.* (LISI!); Alto Alentejo Arraiolos, Vimieiro, Herdade da Tourega, [38°43' N, 7°59' W], 27 May 1983, *Costa, J.C. s.n.* (LISI!); Alto Alentejo Montemor-o Novo, Lavre, [38°46' N, 8°22' W], 15 June 1962, *Rozeira, A.; Koepp, K.; Costa, G. s.n.* (PO!); Alto Alentejo Alter do

Chão, Coudelaria de Alter, [39°12' N, 7°40' W], 2 March 1955, Malato-Beliz, J.V.C.; Raimundo 1765 (MA!); Alto Alentejo Elvas, [...] Quinta de Sta. Rita, [38°53' N, 7°10' W], 8 March 1953, Guerra, J.A. 82 (MA!); Alto Alentejo Mourão, carretera entre Villanuevo del Fresno y Mourão, 140 m, [38°22' N, 7°18' W], 21 March 2001, Nisa, S.; Castroviejo, S.; Aldasoro, J.J. SN 289 (MA!); Alto Alentejo [38°43' N, 7°36' W], 7 May 1997, Fernandes, A.; Sousa 1725 (COI!); Alto Alentejo [38°43' N, 7°36' W], May 1891, Moller, A. s.n. (COI!); Alto Alentejo [38°53' N, 7°10' W], April 1887, Sousa, J.C.S. s.n. (COI!); Alto Alentejo Vila Fernando to Vila Boim, Atalaia Ridge, [38°52' N, 7°17' W], 27 April 1979, Goriup, P.D. s.n. (RNG!); **Beira Alta**: [40°24' N, 7°43' W], 31 March 1980, *Marques, A. 1733* (COI!); [40°26' N, 8°00' W], June 1886, *Moller, A. s.n.* (COI!); [40°31' N, 7°37' W], July 1890, *Ferreira, M. s.n.* (COI!); Manteigas, Qta de S. Fernando, [40°24' N, 7°32' W], April 1938, *Torres, A.M. s.n.* (LISI!); Casais do Douro, mata da Quinta da Carvalha, [41°10' N, 7°32' W], April 1942, *Grandvaux Barbosa, L.A.; Garcia, F. 3127* (LISI!); Mangualde, Bôco, S. Tiago, 650 m, [40°36' N, 7°46' W], 17 May 1955, *Almeida, F.S. s.n.* (LISI!); Trancoso, Quadrado, próx. da estrada para Celorico, 475 m, [40°47' N, 7°21' W], 21 April 1954, *Costa, N.M. s.n.* (LISI!); Vila Nova de Foz Côa, entre Vila Nova de Foz Côa e Ponte de Côa, 29TPF5848, [41°05' N, 7°12' W], 8 March 2008, *Honrado, J.; Caldas, F.B.; Séneca, A.; Pereira, R. s.n.* (PO!); Figueira de Castelo Rodrigo, Barca d'Alva, Quinta da Pedriça, [41°01' N, 6°56' W], 12 April 1977, *Rezende, A.; Serra, A.; Bernardino, C. s.n.* (PO!); [41°01' N, 6°56' W], 25 March 1973, *Rozeira, A.; Serra, A.; Bernardino, C. s.n.* (PO!); Figueira de Castelo Rodrigo, Barca d'Alva, a Sul da estação, [41°01' N, 6°56' W], 26 May 1971, *Costa, G.; Araújo, J. s.n.* (PO!); Figueira de Castelo Rodrigo, Barca d'Alva, Quinta da Pedriça, a Sul da estação, [41°01' N, 6°56' W], 29 June 1970, *Rozeira, A. s.n.* (PO!); Figueira de Castelo Rodrigo, Barca d'Alva, estação dos C.F., [41°01' N, 6°56' W], 23 May 1970, *Rozeira, A.; Barreto, D.; Costa, G.; Serra, A. s.n.* (PO!); Figueira de Castelo Rodrigo, Barca d'Alva, [41°01' N, 6°56' W], 5 May 1967, *Rozeira, A.; Costa, G.; Araújo, J. s.n.* (PO!); em frente a Barca d'Alva, [41°01' N, 6°56' W], 7 April 1952, *Rozeira, A.; Serra, A. s.n.* (PO!); Lamego, próx. à margem do Rio Douro em frente à Regua, [41°08' N, 7°48' W], 16 April 1953, *Rozeira, A.; Castro, J. s.n.* (PO!); [40°24' N, 7°32' W], *Sampaio, G. 5798* (COI!); **Baixo Alentejo**: [37°38' N, 7°40' W], April 1888, *Moller, A. s.n.* (COI!); Serra de Serpa, [37°50' N, 7°35' W], October 1929, *Mello, M.P. s.n.* (LISI!); Barrancos, [38°08' N, 6°59' W], March 1940, *Costa s.n.* (LISI!); Moura, [38°08' N, 7°27' W], 27 March 1957, *Belo, M. s.n.* (LISI!); Serpa, Herdade da Torre, [37°56' N, 7°36' W], April 1952, *Palma, F.G. s.n.*

(LISI!); Mértola, terraço do Castelo, [37°38' N, 7°40' W], 21 April 1984, *Caldas, F.B. s.n.* (PO!); Beja, [38°01' N, 7°52' W], 14 March 1971, *Ferreira, B. s.n.* (PO!); Odemira, Ribeira do Torgal, [37°36' N, 8°38' W], 19 April 1968, *Rozeira, A.; Alte, J.; Costa, G.; Serra, A. s.n.* (PO!); Odemira, [37°35' N, 8°29' W], 1899, *Sampaio, L. s.n.* (PO!); Odemira, Furnal, [37°35' N, 8°29' W], August 1905, *Sampaio, G. s.n.* (PO!); entre Ourique e Castro Verde, [37°42' N, 8°05' W], May 1888, *Moller, A. s.n.* (MA!); carretera Brinches - Moura, [38°02' N, 7°36' W], 21 March 2001, *Valcárcel, V.; Aedo, C.; Álvarez, I.; Navarro, C. OIVV 78* (MA!); [37°35' N, 8°29' W], 1893, *Sampaio, G. 65* (COI!); [37°40' N, 8°10' W], May 1888, *Moller, A. s.n.* (COI!); [37°50' N, 7°35' W], May 1882, *Daveau, J. s.n.* (COI!); [38°03' N, 8°02' W], 14 June 1960, *Fernandes, A.; Fernandes, R.; Matos, J. 7551* (COI!); Beja Beja, [38°01' N, 7°52' W], April 1999, *NCRPIS (USDA) PI633645 in Silveira, P. 3110* (AVE!); **Beira Baixa:** Idanha-a-Nova, Carvalhos, 364 m, [39°55' N, 7°14' W], 4 April 1955, *Avelar, J.A.G. s.n.* (LISI!); Penamacor, leite de cheia da Ribeira de Bazágueda, [40°10' N, 7°10' W], 27 April 1987, *Lousã, M.; Rosa; Luz s.n.* (LISI!); Covilhã, Refúgio, [40°16' N, 7°30' W], 28 April 1962, *Rozeira, A.; Koepf, K.; Costa, G. s.n.* (PO!); S. Fiel, [40°02' N, 7°30' W], February 1890, *Merryharth, L.J. s.n.* (COI!); [39°49' N, 7°30' W], *Sampaio, G. 5492* (COI!); **Beira Litoral:** [40°19' N, 8°35' W], 18 February 1980, *Marques, A. 1595* (COI!); [40°36' N, 8°40' W], 14 January 1980, *Marques, A. 1579* (COI!); [40°41' N, 8°36' W], 18 December 1979, *Marques, A. 1561* (COI!); [40°26' N, 8°26' W], 21 March 1977, *Marques, A. 85* (COI!); [40°12' N, 8°25' W], November 1886, *Moller, A. 277* (COI!); Figueira da Foz, ad fossas salinarium, [40°09' N, 8°52' W], 2 August 1968, *Rechinger, K.H. O 2412* (HAL!); Montemor-o-Velho, [40°10' N, 8°41' W], July 1938, *Fonseca, F. s.n.* (LISI!); Murtosa (Aveleira, Celeiro), [40°44' N, 8°38' W], April 1930, *Souza, T. s.n.* (LISI!); Oliveira de Azemeis, [40°50' N, 8°29' W], January 1950, *Pinheiro, F.S. s.n.* (LISI!); Coimbra, Penacova, Oliveira do Mondego, arredores de Porto da Raiva, [40°19' N, 8°13' W], 10 July 1982, *Marques, A. 2206* (MA!); Condeixa, nas ruínas, [40°07' N, 8°30' W], 6 August 2002, *Machado, A. s.n.* (PO!); Figueira da Foz, Quiaios, [40°13' N, 8°51' W], 22 July 1987, *Serra, A.; Armando; Loureiro s.n.* (PO!); Aveiro, a N da cidade, [40°38' N, 8°39' W], 28 June 1964, *Rozeira, A.; Costa, G. s.n.* (PO!); Ovar, Luzes, [40°52' N, 8°38' W], 28 November 1958, *Martins d'Alte; Costa s.n.* (PO!); arredores de Coimbra, [40°12' N, 8°25' W], December 1880, *Lima, W.P. 208* (PO,LISI!); [40°38' N, 8°39' W], 7 February 1977, *Marques, A. 10* (COI!); [40°23' N, 8°22' W], 1885, *Ferreira, M. s.n.* (COI!); [40°12' N, 8°25' W], *Sampaio, G. 741* (COI!); [40°22' N, 8°27' W], *Sampaio, G.*

523 (COI!); [40°10' N, 8°51' W], August 1895, *Ferreira, M. s.n.* (COI!); [40°26' N, 8°44' W], July 1893, *Ferreira, M. s.n.* (COI!); [40°12' N, 8°51' W], September 1882, *Moller, A. s.n.* (COI!); [40°16' N, 8°28' W], March 1883, *Moller, A. s.n.* (COI!); [40°07' N, 8°15' W], May 1906, *Lemos, A.V. s.n.* (COI!); [40°12' N, 8°25' W], 13 November 1965, *Moura, A.R. 12* (COI!); [40°10' N, 8°28' W], 15 April 1965, *Paiva, J. 76* (COI!); [40°02' N, 8°23' W], 1 April 1995, *Durães, C.; Prata, F. 19* (COI!); Coimbra, 1844, *unclear s.n.* (K!); Coimbra, Penedo da Meditação, [40°12' N, 8°25' W], 5 April 1954, *Matos, A.; Marques, A. s.n.* (RAB,COI,SANT!); Arganil Arganil, Esporão, junto às bombas da GALP, 580 m 7 March 1996, *Silveira, P.; M.C.Alves, J.Forte A. Pimenta 3* (AVE,COI!); Arganil Arganil, Salgueiral, 270 m 10 March 1998, *Silveira, P. 1712* (AVE,COI!); Arganil Arganil, Folques, 240 m 10 March 1998, *Silveira, P. 1718* (AVE,COI!); O. Bairro Oliveira do Bairro, Oiã, Águas Boas, [40°32' N, 8°34' W], 14 April 2008, *Silveira, P. 3020* (AVE!); Aveiro Aveiro, Rua da Pêga, 1 m, [40°38' N, 8°39' W], 14 April 2008, *Silveira, P. 3021* (AVE!); Aveiro Aveiro, Rua da Pêga, 1 m, [40°38' N, 8°39' W], 17 March 2009, *Nora S in Silveira, P. 3021 b* (AVE!); Oliveira do Bairro ca. 300 m a W da povoação, 50 m, [40°31'36" N, 8°33'40" W], 20 March 2015, *Silveira, P. 3345* (AVE!); **Douro Litoral:** Vila do Conde, margem direita do Rio Este, na ponte da estrada de Fontainhas para Arcos, [41°24' N, 8°40' W], 12 November 1968, *Mello, M.P. s.n.* (LISI!); Matosinhos, Custoias, beira da via férrea, [41°12' N, 8°38' W], 10 March 1976, *Serra, A.; Botelho s.n.* (PO!); Baião, Barragem do Carrapatelo, [41°09' N, 8°02' W], 5 May 1976, *Rezende, A.; Serra, A.; Bernardino, C. s.n.* (PO!); Santo Tirso, Santa Cristina do Couto, [41°19' N, 8°28' W], 13 March 1945, *Carneiro, B. s.n.* (PO!); Matosinhos, Perafita, Cabo do Mundo, [41°13' N, 8°42' W], 20 March 1975, *Alexandre; Serra, A. s.n.* (PO!); Matosinhos, Custoias, [41°12' N, 8°38' W], 7 May 1974, *Serra, A. s.n.* (PO!); Vila Nova de Gaia, Lavadores, [41°08' N, 8°40' W], 7 April 1973, *Serra, A. s.n.* (PO!); Gondomar, Gramido, na beira do Rio Douro, [41°09' N, 8°32' W], 2 March 1972, *Serra, A. s.n.* (PO!); Maia, na beira da estrada que vai para a via norte, [41°14' N, 8°37' W], 24 November 1971, *Serra, A.; Araújo, J. s.n.* (PO!); Vila Nova de Gaia, Praia de Salgueiros, [41°08' N, 8°37' W], 17 April 1969, *Serra, A. s.n.* (PO!); Vila Nova de Gaia, Canidelo, Praia de Salgueiros, [41°07' N, 8°39' W], 18 August 1967, *Costa, G. s.n.* (PO!); Vila Nova de Gaia, Candal, Lavadores, [41°08' N, 8°40' W], December 1965, *Costa, G. s.n.* (PO!); Gondomar – Fanzeres, Seixo, [41°10' N, 8°32' W], 22 April 1965, *Costa, G.; Araújo, J. s.n.* (PO!); Vila Nova de Gaia, Gulpilhares, [41°05' N, 8°39' W], 18 December 1964, *Costa, G. s.n.* (PO!); Vila Nova de Gaia, Lavadores,

[41°08' N, 8°40' W], 11 August 1963, *Costa, G. s.n.* (PO!); Matosinhos, Leça da Palmeira, Rodão, [41°12' N, 8°42' W], 30 January 1963, *Costa, G. s.n.* (PO!); Vila do Conde, Azurara, [41°21' N, 8°44' W], 6 December 1961, *Costa, G. s.n.* (PO!); Valongo, próximo a Santa Justa, [41°10' N, 8°30' W], 4 December 1959, *Costa, G.; Alves, A. s.n.* (PO!); Vila Nova de Gaia, Canidelo, Salgueiros, [41°07' N, 8°39' W], 14 October 1959, *Costa, G.; Alves, A. s.n.* (PO!); Matosinhos, Santa Cruz do Bispo, [41°13' N, 8°40' W], 3 April 1955, *Costa, G.; Araújo, J. s.n.* (PO!); Matosinhos, Boa Nova, [41°02' N, 8°37' W], 28 February 1947, *Castro, J. s.n.* (PO!); Matosinhos, Leça da Palmeira, [41°12' N, 8°42' W], 29 February 1891, *Johnston, E. s.n.* (PO!); Matosinhos, próximo a Guifões, [41°12' N, 8°40' W], 29 November 1885, *Johnston, E. s.n.* (PO!); Matosinhos, [41°11' N, 8°41' W], 24 April 1949, *Castro, J. s.n.* (PO!); Melres, [41°04' N, 8°24' W], 8 April 1949, *Rozeira, A. s.n.* (PO!); Porto, Prelada, [41°25' N, 8°46' W], 15 April 1942, *Castro, J. s.n.* (PO!); Porto, [41°09' N, 8°37' W], May 1897, *Sampaio, G. s.n.* (PO!); Amarante, [41°16' N, 8°05' W], April 1906, *Sampaio, G. s.n.* (PO!); Vila do Conde, Jardim, [41°21' N, 8°45' W], April 1906, *Sampaio, G. s.n.* (PO!); Porto, Foz do Douro, [41°09' N, 8°40' W], May 1908, *Sampaio, G. s.n.* (PO!); Serra da Estrela, Gouveia ved Bokven, [40°30' N, 7°36' W], 6 April 1921, *Rahn, K. 74* (C!); [41°06' N, 8°38' W], 9 July 2009, *Nora S in Silveira, P. 3054* (AVE!); **Estremadura**: [38°48' N, 9°23' W], 22 December 1960, *Matos, J.; Marques, A. 7619* (COI!); Seixal, Praia da Areia Branca, [39°15' N, 9°20' W], 16 January 1978, *Costa, J.C. s.n.* (LISI!); Caldas da Rainha, Alvorninha, Quinta do Bairro, [39°23' N, 9°02' W], 17 March 1981, *Vasconcellos, J.; et al. s.n.* (LISI!); Arredores de Lisboa, Serra de Monsanto, [38°44' N, 9°11' W], June 1888, *unclear s.n.* (LISI!); Lisboa, Tapada da Ajuda, [38°57' N, 9°08' W], January 1929, *Vasconcellos, J. s.n.* (LISI!); Trafaria, [38°40' N, 9°14' W], April 1936, *Pinto da Silva s.n.* (LISI!); Vila Franca (Monte Gordo), 190 m, [39°48' N, 7°44' W], April 1941, *Carvalho, J.M.; Flores, F.M. 279 7* (LISI!); Loures (Guerreiros), 80 m, [38°50' N, 9°10' W], April 1941, *Carvalho, J.M.; Flores, F.M. 148 4* (LISI!); entre Regna e Caldas de Moledo, [39°17' N, 9°15' W], March 1941, *Lopes, P.; Gomes Pedro, J. 106* (LISI!); Alcacer do Sal, Valverde, [38°22' N, 8°30' W], May 1953, *Quita Quita, J. s.n.* (LISI!); Óbidos, Quinta de Paul – Amoreira, [39°20' N, 9°12' W], April 1953, *Guerra, A.C.C. s.n.* (LISI!); Mata Nacional dos Medos, Península de Setúbal, [38°55' N, 9°20' W], 29 May 1957, *Lameira, R. s.n.* (LISI!); Sesimbra, Castelo, Cabo Espichel, [38°25' N, 9°13' W], 12 February 1980, *Franco, J.A.; Lousã, M.; Espírito Santo, M.D. s.n.* (LISI!); Torres Vedras, Paul, [39°06' N, 9°16' W], 30 April 1974, *Vasconcelos, T. s.n.* (LISI!); Cadaval – Junceira, ca. 1 km

antes da vila, vindo de Montejunto, [39°14' N, 9°06' W], 9 May 1971, *Mello, M.P. s.n.* (LISI!); Oeiras, gardens of palace, weed, Instituto Gulbenkian, [38°42'00" N, 9°18'30" W], 4 April 1978, *Pankhurst, R.J. 78 18* (BM!); Sesimbra, Lagoa de Albufeira, [38°31' N, 9°10' W], 21 February 1989, *Moura, A.R. 3651* (MA!); Porto, Arrábida, [38°29' N, 8°59' W], 12 March 1962, *Araújo, M. s.n.* (PO!); Alcochete, [38°45' N, 8°58' W], 5 April 1958, *Rozeira, A.; Koepp, K.; Araújo, J. s.n.* (PO!); Grândula, [38°10' N, 8°34' W], 18 April 1968, *Rozeira, A.; Alte, J.; Costa, G.; Serra, A. s.n.* (PO!); Serra da Arrábida, Mata do Solitário, [38°28' N, 9°00' W], 17 April 1968, *Malato-Beliz, J.V.C.; et al. 2472* (MA!); Península de Troia, [38°23' N, 8°47' W], 4 October 1972, *Malato-Beliz, J.V.C.; Guerra, J.A. 11505* (MA!); Serra de Monsanto, [38°44' N, 9°11' W], March 1885, *Daveau, J. 1214* (MA!); Lourinhã, Praia da Areia Branca, [39°15' N, 9°20' W], 4 September 1961, *Rainha, B. 5086* (LISI,MA!); [37°57' N, 8°25' W], *Sampaio, G. 3168* (COI!); Sesimbra, dentro da cerca do Castelo, [38°27' N, 9°07' W], 18 December 1975, *Correia, M.F.; Cardoso, J. 4423* (COI,BC!); [38°32' N, 8°54' W], April 1887, *Moller, A. s.n.* (COI!); [38°32' N, 8°54' W], April 1901, *Luisier, A. s.n.* (COI!); [38°56' N, 9°20' W], October 1886, *Simões, Z. s.n.* (COI!); [39°06' N, 9°16' W], July 1884, *Perestrello, J. s.n.* (COI!); [38°42' N, 9°25' W], *Sampaio, G. 2996* (COI!); [38°42' N, 9°25' W], *Sampaio, G. 3660* (COI!); [38°44' N, 9°11' W], March 1881, *Daveau, J. s.n.* (COI!); [38°42' N, 9°10' W], January 1881, *Daveau, J. s.n.* (COI!); [38°28' N, 9°10' W], May 1882, *Moller, A. s.n.* (COI!); [38°44' N, 8°58' W], April 1901, *Luisier, A. s.n.* (COI!); [39°45' N, 8°56' W], March 1886, *Pimentel, S. s.n.* (COI!); [39°51' N, 8°39' W], July 1890, *Moller, A. s.n.* (COI!); [38°40' N, 9°14' W], April 1890, *Daveau, J. s.n.* (COI!); Lagoa de Santo Andre, [38°06' N, 8°48' W], 23 February 1968, *Fernandes, A.; Paiva, J.; Matos, J. 10092* (COI,RAB,SANT!); [38°27' N, 9°07' W], 19 February 1971, *Matos, A.; Alves, M. s.n.* (COI!); [38°41' N, 9°09' W], 6 December 1981, *Mendes, J.; Romão, J. s.n.* (COI!); [38°40' N, 9°04' W], 10 November 1943, *Fontes, S.; Silva, M. 138* (COI!); Serra de Monsanto, [38°44' N, 9°11' W], April 1880, *Daveau, J. 340* (PO,COI!); arredores de Lisboa, 27 April 1947, *Lemos, F. 24* (K!); Vallée d'Alcantara, [38°42' N, 9°10' W], April 1880, *Daveau, J. s.n.* (K!); Estacio Agronomica Nacional, Oeiras, 22 January 1965, *Meyer, F.G. 9103* (K!); Barreiro, [38°40' N, 9°04' W], November 1943, *Fontes, C.; Silva, M. 138* (RAB!); Montejunto, Pragança, próx. das Penhas do Meio Dia, 320 m, [39°11' N, 9°03' W], 27 March 1953, *Rainha, B. 2443* (RAB!); Caceres, Alcantara, ribeiras del Tajo, Northen bank, near the roman way 29SPD8998, 145 m, [38°42' N, 9°10' W], 3 May 1994, *Conti, F.; et al. 1599* (RNG!); Porto de Mós Porto de Mós, junto às grutas de Alvados,

[39°33' N, 8°46' W], 8 April 2006, *Silveira, P. 2938 b* (AVE!); Sintra Sintra, Colares, junto ao cruzamento para Praia das Maças, num muro da Rua 1° de Maio, 19 m, [38°48'13" N, 9°27'03" W], 18 March 2008, *Silveira, P. 3018* (AVE!); Cadaval berma da estrada, uns 100 m depois da localidade anterior, 337 m, [39°11'46" N, 9°03'28" W], 19 January 2011, *Silveira, P. 3181* (AVE!); **Minho**: Guimarães – Brito, Pedra Furada, [41°27' N, 8°22' W], 9 April 1971, *Mello, M.P. s.n.* (LISI!); [41°32' N, 8°47' W], October 1883, *Sequeira, A. s.n.* (COI!); **Ribatejo**: Vila Nova de Ourém, Fátima, Boleiros, [39°35' N, 8°39' W], 15 April 1955, *Lopes, M.C. s.n.* (LISI!); Santarém, Almoester, Quinta do Vale de Moinhos, [39°14' N, 8°48' W], 15 April 1956, *Alfaiate, M. s.n.* (LISI!); Rio Maior, Fonte Branca, propriedade de António de Sousa Salgado, [39°20' N, 8°56' W], 23 January 1980, *Vasconcelos, T. 14* (LISI!); Alcanena, grutas de Sto António, [39°27' N, 8°40' W], 18 May 1974, *Rozeira, A.; Serra, A.; Bernardino, C. s.n.* (PO!); Entroncamento, estação dos C.F., [39°28' N, 8°28' W], 26 May 1971, *Costa, G.; Araújo, J. s.n.* (PO!); estrada de Muge a Almeirim, a 3 km de Almeirim, [39°12' N, 8°38' W], 5 February 1971, *Rozeira, A.; Barreto, D.; Costa, G.; Serra, A. s.n.* (PO!); Fátima, estrada para a fonleira, [39°37' N, 8°39' W], 14 June 1962, *Rozeira, A.; Koepf, K.; Costa, G. s.n.* (PO!); Entroncamento, estação dos C.F., [39°28' N, 8°28' W], 8 August 1970, *Rozeira, A.; Costa, G.; Serra, A. s.n.* (PO!); Quinta Grande, [38°56' N, 8°31' W], March 1894, *Sampaio, G. s.n.* (PO!); Alferrarede, próximo Abrantes, 100 m, [39°29' N, 8°10' W], 27 March 1992, *Navarro, C.; Aedo, C.; Muñoz Garmendia, F. CN 121* (MA!); [39°33' N, 8°31' W], 30 March 1976, *Matos, A.; Cabral, J.L.; Alves, M. 13519* (COI!); [39°42' N, 8°18' W], 27 February 1970, *Nogueira, J.; Almeida, T.; Dinis, A. 10962* (COI!); [39°28' N, 8°12' W], 9 June 1971, *Fernandes, A.; Fernandes, R.; Matos, J. 11592* (COI!); [39°46' N, 8°16' W], 1888, *Pinto, F.S. s.n.* (COI!); [39°14' N, 8°41' W], 29 March 1954, *Matos, J.; Matos, A.; Santos, A. 4624* (COI!); [39°14' N, 8°41' W], 5 December 1965, *Moura, A.R. 100* (COI!); Abrantes, Alvega, Areia de Baixo, ao sair da povoação em direção à Barragem de Belver, 50 m, [39°27'49" N, 8°00'32" W], 26 December 2011, *Silveira, P. 3179* (AVE!); **Trás-os-Montes**: [41°29' N, 7°11' W], 3 May 1951, *Beliz, E.R. 773* (COI!); Vilarinho dos Freires, próx. à Ponte da Férvida, [41°10' N, 7°45' W], 26 March 1945, *Grandvaux Barbosa, L.A.; Garcia, F. 7743* (LISI!); Vale do Tua, Tralhariz, [41°14' N, 7°24' W], October 1944, *Grandvaux Barbosa, L.A.; Garcia, F. 7404* (LISI!); Mogadouro, [41°20' N, 6°43' W], 3 July 1985, *Serra, A.; Loureiro s.n.* (PO!); Alijó, Pinhão, [41°11' N, 7°33' W], 3 March 1974, *Rozeira, A.; Serra, A.; Bernardino, C. s.n.* (PO!); Vila Real, beira do circuito, [41°18' N, 7°45' W], 2 March 1974, *Rozeira, A.;*

Serra, A.; Bernardino, C. s.n. (PO!); Santa Marta de Penaguião, Casal da Gaivosa, [41°12' N, 7°48' W], 2 March 1974, *Rozeira, A.; Serra, A.; Bernardino, C. s.n. (PO!);* Vila Real, Borralha, [41°39' N, 7°59' W], 2 March 1974, *Rozeira, A.; Serra, A.; Bernardino, C. s.n. (PO!);* Carrazeda de Ansiães, Foz-Tua, taludes da via férrea de Bragança, [41°13' N, 7°26' W], 3 April 1971, *Barreto, D.; Costa, G.; Serra, A. s.n. (PO!);* Freixo de Espada à Cinta, Poiães, a 7 km de Barca d'Alva, [41°03' N, 6°52' W], 22 May 1970, *Rozeira, A.; Barreto, D.; Costa, G.; Serra, A. s.n. (PO!);* Freixo de Espada à Cinta, Poiães, próx. ao ribeiro do Mosteiro, [41°03' N, 6°52' W], 22 May 1970, *Rozeira, A.; Barreto, D.; Costa, G.; Serra, A. s.n. (PO!);* Miranda do Douro, barragem de Bemposta, margem do Douro a Sul, [41°30' N, 6°16' W], 7 June 1963, *Rozeira, A.; Koepf, K.; Araújo, M. s.n. (PO!);* Carrazeda de Ansiães, Foz-Tua, [41°13' N, 7°26' W], 4 April 1942, *Rozeira, A. s.n. (PO!);* Sabrosa, Covas do Douro, [41°11' N, 7°36' W], 22 April 1938, *Rozeira, A. s.n. (PO!);* Bragança, [41°49' N, 6°45' W], 6 April 1909, *Sampaio, G. s.n. (PO!);* [41°13' N, 7°42' W], March 1910, *Pavão, A.A. s.n. (COI!);* [41°19' N, 7°02' W], April 1890, *Ochôa, M.C. s.n. (COI!);* [41°26' N, 6°52' W], May 1887, *Mariz, J. s.n. (COI!);* [41°28' N, 6°27' W], June 1888, *Mariz, J. s.n. (COI!);* [41°39' N, 6°36' W], July 1922, *Lopes, M. 363 (COI!);* [41°10' N, 7°03' W], May 1887, *Mariz, J. s.n. (COI!);*

C. officinalis Linnaeus (1753: 921)

Additional specimens examined: SPAIN. **Alicante:** Los Alcoyes, Torre de les Maçanes, 900 m, [38°21' N, 0°29' W], 17 March 1990, *Serra, L. 901769 (VAL!);* Torre de les Maçanes, Barranco de la Torre, 850 m, [38°21' N, 0°29' W], 20 April 1991, *Serra, L. 931193 (VAL!);* Balones, 670 m, [38°44' N, 0°20' W], 28 March 1992, *Serra, L. 2121 (VAL!);* **Barcelona:** Catalogne, Monserrat, 800 m, [41°36' N, 1°49' E], 19 April 1916, *Sennen, F. 2704 (BM,COI,BC,MA!);* Barcelona, [41°23' N, 2°11' E], May 1923, *Sennen, F. s.n. (BC!);* **Burgos:** Pesquera de Ebro, [42°48' N, 3°43' W], 27 April 1985, *Galán Cela;Martín, A. 931 (MA!);* Medina de Pomares, [42°56' N, 3°29' W], 15 August 1986, *Molina;Dueños s.n. (MA!);* **Cantabria:** Santander, [43°27'53" N, 3°48'16" W], 18 February 1986, *Lorient, E. s.n. (MA!);* Soba, San Pedro de Soba, 680 m, [43°12' N, 3°35' W], 22 October 1997, *Pardo de Santayana, M. 266 (MA!);* Valderredible, Polientes, 760 m, [42°48' N, 3°56' W], 20 October 1997, *Pardo de Santayana, M. 314 (MA!);* Valderredible, Campo de Ebro, 700 m, [42°48' N, 3°58' W], 21 October 1998, *Pardo de Santayana, M. 237 (MA!);* Santander, [43°27'53" N, 3°48'16" W],

26 March 1983, *Loriente, E. s.n.* (MA!); [43°27'53" N, 3°48'16" W], 5 April 1988, *Loriente, E. s.n.* (MA!); San Vicente de La Barquera, [43°26' N, 4°24' W], 29 May 1988, *Loriente, E. s.n.* (MA!); Cueto, [43°29' N, 3°48' W], 1 April 1991, *Loriente, E. s.n.* (MA!); **Castellón**: Benafigos, 950 m, [40°16' N, 0°12' W], 28 May 1988, *Fabregat, C. 1531 CF* (BCN!); Oropesa (La Plana Alta), Oropesa (Montaña S), 50 m, [39°55' N, 5°10' W], 7 July 1989, *Tirado, J.; Villaescusa, C. s.n.* (VAL!); Fuente de la Reina, 800 m, [41°00' N, 0°51' E], 21 May 1986, *Mateo, G.; Figueirola, R. 86 480* (VAL!); Benafigos, 950 m, [40°16' N, 0°12' W], 28 May 1988, *Fabregat, C. s.n.* (VAL!); **Cuenca**: Hontecillas, 820 m, [39°42' N, 2°11' W], 29 April 2001, *Alarcon, M.L. 23* (MA!); Cervera del Llano, [39°47' N, 2°25' W], 14 June 1994, *Pinillos, J. s.n.* (VAL!); Vara de Rey, 800 m, [39°25' N, 2°17' W], 10 April 1999, *Moratalla, L. 99 0675* (VAL!); Landete, puente Salobrar, 1000 m, [39°54' N, 1°22' W], 8 December 1994, *Hernandez, M.L. 960765* (VAL!); **Cáceres**: Cáceres, [39°29' N, 6°22' W], March, *Mateos, R. 8099* (MAF!); Villasbuenas de Gata, [40°11' N, 6°37' W], 8 April 1978, *Franzi, A.V. s.n.* (SALA!); Torrejoncillo, Dehesa Vieja, 281 m, [39°54' N, 6°28' W], 10 June 2009, *Ladero, M.; Inglesas, F.J.; Pacheco, G. s.n.* (SALA!); **La Coruna**: Covas (Ferrol), [42°57' N, 9°05' W], 25 September 2001, *Fagundez, J. 1452* (SANT!); Valdocino, [43°36' N, 8°08' W], 5 May 1989, *unclear s.n.* (SANT!); **La Rioja**: Santurdejo, afueras de a localidad, 790 m, [42°23' N, 2°57' W], 19 April 1998, *Banquero, G.G. 478* (SALA!); **León**: Villar del Puerto, [42°53' N, 5°35' W], 27 June 2007, *Delgado, M.C. s.n.* (LEB!); Correcillas, [42°53' N, 5°27' W], 21 June 2007, *Delgado, M.C. s.n.* (LEB!); Coladilla, [42°53' N, 5°33' W], 27 June 2007, *Delgado, M.C. s.n.* (LEB!); Puente Villarente, [42°33' N, 5°27' W], 1 October 1970, *Andres, C. s.n.* (LEB!); **Lugo**: Lugo, [43°26' N, 5°49' W], 26 June 1993, *Gomez, X.S. s.n.* (SANT!); Folgoso, [42°33' N, 8°21' W], 28 April 1981, *Izco, J.; Amigo, J.; Guitan, J. s.n.* (SANT!); **Lérida**: Cubells, 450 m, [41°51' N, 0°58' E], 16 August 1983, *Pedrol, J. s.n.* (MA!); **Madrid**: Aranjuez, [40°02' N, 3°36' W], 1924, *unclear s.n.* (MAF!); Torrelorones, Los Peñacales, [40°35' N, 3°56' W], 14 June 1994, *Gabriel, J.M.; Galán 278* (MACB!); **Navarra**: Navarra [?], Jardín de Salinas, [43°00' N, 1°30' W], *Salcedo s.n.* (MA!); **Ourense**: Castro mCaldelas, A Teixeira, 600 m, [42°56' N, 9°16' W], 26 April 1996, *Amigo, J.; Ortiz, S.; Lonzán, R.S. 930* (SANT!); **Palencia**: Quintana del Puente, [42°05' N, 4°12' W], 18 June 1988, *Lopez, C.; Monge, C.; Abello, A.R. s.n.* (MACB!); Monzon de Campos, bordes del rio Carrion, [41°53' N, 4°32' W], 19 June 1990, *Lopez, C.; Abello, A.R. s.n.* (MACB!); **Salamanca**: Balneario de Retortillo, [40°58' N, 5°39' W], 10 June 1976, *Rico, E. s.n.* (SALA!); **Segovia**: Sacramenia (coto de

S. Bernardo), 880 m, [41°30' N, 3°57' W], 29 May 1984, *Romero, T. s.n.* (MA!); Cantimpalos, 915 m, [41°04' N, 4°09' W], 14 November 1987, *Garcia, R. 4438 RG* (LEB,MA,SANT!); Fuente el Olmo de Fuentidueña, [41°23' N, 4°00' W], 29 September 1984, *Romero, T. s.n.* (SALA!); **Soria**: Soria, [41°46' N, 2°28' W], *unclear s.n.* (MA!); **Tarragona**: Alt Camp m Valls, [41°17' N, 1°15' E], 6 August 1977, *Barrau, J. s.n.* (BC!); **Teruel**: San Agustin, Barranc del Barruezo, 860 m, [40°21' N, 1°06' W], 12 October 1989, *Riera, J. 1451 JRV* (VAL!); Nobrega de Abarracin, pueblo, 1380 m, [40°21' N, 1°06' W], 11 July 2007, *Mateo, G.; Torres, C.; Fabado, J. s.n.* (VAL!); **Toledo**: Caleruela, [39°52' N, 5°15' W], 15 March 1994, *Navarro, P. s.n.* (MA!); **Valencia**: Gandia (La Safor), [38°58' N, 0°11' W], 17 July 1993, *Soriano, P. s.n.* (VAL!); Morela (Els Ports), La Vallivana, 800 m, [40°37' N, 0°06' W], 13 April 1989, *Aguilella, A. AAP 3028* (VAL!); Betera (Camp de Turia), [39°35' N, 0°27' W], 20 May 1987, *Crespo, M.B. s.n.* (VAL!); Riba mRoja (Camp de Turia), Pla de la Vallesa, 75 m, [39°28' N, 0°22' W], 13 January 2000, *Peña, A. s.n.* (VAL!); La Costera, Canals, 160 m, [39°28' N, 0°22' W], 3 May 1997, *Sancho, M.E. s.n.* (VAL!); Cataroja, Puerto, [39°24' N, 0°24' W], 28 February 1998, *Bargues, D. s.n.* (VAL!); Enbalse de Buseo, [39°28' N, 0°22' W], 4 April 1984, *Sanchis, E.; Alcober, J.A. s.n.* (VAL!); Chiva a Quart, 150 m, [39°28' N, 0°22' W], 19 April 1984, *Mateo, G. s.n.* (VAL!); Paterua, La Cañade, 100 m, [39°28' N, 0°22' W], 14 April 1991, *Moraño, M. s.n.* (VAL!); **Valladolid**: Renedo de Esgueva, 700 m, [41°39' N, 4°43' W], 23 April 2000, *Bello, J. A. s.n.* (SALA!); **Zaragoza**: Zuera, 280 m, [41°52' N, 0°47' W], 7 March 1981, *Segura Zubizarreta, A. 24014* (MA!); **PORTUGAL. Alto Alentejo**: Elvas, Quinta de Sto. Onofre, [38°53' N, 7°10' W], 1971, *Guerra, J.A. 795* (MA!); Évora, [39°31' N, 8°58' W], May 1882, *Daveau, J. 65* (COI!); Elvas, [38°53' N, 7°10' W], April 1887, *Gandonger, M. s.n.* (COI!); *Calendula seminibus radii cymbiformes echinatis, disci bicornibus*. Lmm Hort. Clif 425, [39°31' N, 8°58' W], *unknown s.n.* (G!); **Beira Litoral**: Oliveira do Bairro, Oiã, [40°33' N, 8°32' W], 12 April 2007, *Silveira, P. 2986 b* (AVE!); [40°38' N, 8°39' W], 17 July 2009, *Nora S in Silveira, P. 3053* (AVE!); Vale de Cambra junto à N224, 260 m, [40°51'52" N, 8°23'03" W], 19 March 2015, *Silveira, P. 3344* (AVE!); **Estremadura**: Seixal, [38°38' N, 9°06' W], 10 March 1865, *Lowe, R.T. 1004 abc* (BM,K!); Ponte da Ribeira da [...], estrada Vendas Novas m Lavre, [39°31' N, 8°58' W], 31 March 1970, *Queirós 3168* (COI!); **Minho**: Esposende Ofir, [41°31' N, 8°46' W], August 1975, *Erickson H In NCRPIS (USDA) PI420253 in Silveira, P. 3091* (AVE!); **Ribatejo**: Abrantes Abrantes, Alvega, Areia de Cima, [39°28' N, 8°03' W], 29 April 2007, *Silveira, P. 2986 c* (AVE!);

Supplementary material 2

Specimens examined from Morocco,
including taxa from Algeria and Tunisia

C. arvensis Linnaeus (1763: 1303)

Additional specimens examined: MOROCCO. **Béni Mellal-Khénifra:** Oued Zen, 300 m, [32°46'18" N, 6°33'48" W], 22 March 1983, *Lewalle, J. 10630* (BM!); culture, Taroudant en 173.5 x 376, [31°40'32" N, 6°57'06" W], 20 March 1973, *Peltier, J.P. 262* (RAB!); culture, Igli en 180.5 x 401, [31°40'32" N, 6°57'06" W], 7 March 1973, *Peltier, J.P. 307* (RAB!); Meknes 500 m à l'W Ait Mimoun, [31°35'25" N, 7°07'33" W], 26 April 1971, *Peltier, J.P. s.n.* (RAB!); **Casablanca-Settat:** [33°21'18" N, 7°03'15" W], November 1912, *Caballero, A. s.n.* (MA!); Casablanca, [33°35'34" N, 7°37'09" W], March 1884, *Basil, H.C. s.n.* (BM!); [33°35'34" N, 7°37'09" W], 1871, *Hooker s.n.* (K!); Settat Berrechid, [33°16'04" N, 7°35'07" W], 1956, *Laisney, M. s.n.* (RAB!); **Drâa-Tafilalet:** Ouazazate, Jbel Sarhro, 31 km on track. 41 km from Ouazazate to Ksar-es-Souk, 1500 m, [31°55'35" N, 4°26'03" W], 18 June 1974, *Reading Univ./BM.Expedition 826* (BM!); district de Tazeroualt et Issighiwar, jusqu'a Si Ahmed ou Moussa, [31°39'43" N, 4°33'50" W], 1876, *Mardochee, R. s.n.* (K!); Midelt, Moulonya, [32°41'10" N, 4°44'25" W], 17 May 1920, *Main, D. 171* (RAB!); **Fès-Meknès:** 41 km SSE Al Hoceima, main road to Taza, 690 m, [34°13'12" N, 4°00'08" W], 1 March 1994, *Jury, S.L. ;Taleb, A.; Upson, T.M.; Walters, G.S. 13684* (BM!); Fes Azrou, [34°31'18" N, 4°20'42" W], April 1934, *Garret, C.S. 34 5 b* (BM!); Meknes Meknes, entre Meknes y Ain-el-Kerma. Carretera a Moulay Idriss, [33°53'37" N, 5°32'50" W], 2 June 1995, *Ferguson, K. ;Parra, R.; Sanchez, M.C.; Valdés, B. 6571 95* (K!); Taza, 500 m, [34°13'12" N, 4°00'08" W], 21 March 1923, *Maire, R. s.n.* (RAB!); Fes Talus, route de Fes, aux camin de l'Oued [...], près de la coté 450, [34°01'59" N, 5°00'01" W], 8 June 1947, *Vindt, J. s.n.* (RAB!); **Guelmim-Oued Noun:** Sidi Ifni Orillas del rio Ifni, [29°22'47" N, 10°10'23" W], 14 June 1934, *Caballero, A. s.n.* (MA!); Sidi Ifni Monte Buhanlam (Ifni), [29°22'47" N, 10°10'23" W], 13 June 1934, *Caballero, A. s.n.* (MA!); Sidi Ifni 8.5 km S of Sidi Ifni on coast road, 80 m, [29°22'47" N, 10°10'23" W], 8 February 2007, *Jury, S.L. ;Upson, T.M. 20539* (RNG!); Labiar, [28°50'16" N, 10°25'20" W], 23 January 1947, *Brettes, R. ;Panouse, J.B.; Sauvage, Ch. 4977* (RAB!); **Marrakech-Safi:** Sidi Beltache (Jbhiret), 100 m, [31°49'48" N, 8°00'00" W], 5 April 1989, *Lewalle, J. 12324* (BM,BR!); Marrakech - Asni, [31°38'01" N, 8°00'33" W], *Godman, E.M 300* (BM!); in the Asni valley, [31°14'32" N, 7°59'13" W], 14 April 1936, *Simpson, N.D. 36414* (BM!); Imlil area, 1524 m, [30°58'21" N, 8°20'35" W], *Goodchild, P. 87* (BM!); H, 35 Km from Marrakech to Chichaoua, 400 m, [31°38'01" N, 8°00'33" W], 16 April 1969, *Davis, P.*

;Davis, J. D 48205 (BM,E!); Mogador, [31°30'38" N, 9°45'40" W], *Sampaio, G. s.n.* (MA!); [31°30'38" N, 9°45'40" W], *Caballero, A. ;Guerrero s.n.* (MA!); Gebel Erbib, Gebilet, north of Marrakech, [31°49'48" N, 8°00'00" W], 20 April 1936, *Simpson, N.D.* 36271 (BM!); 50 miles from Marrakech on Marrakesh - Ouarzazate road, [31°38'01" N, 8°00'33" W], 26 March 1975, *Teddington School Expedition s.n.* (BM!); Oued Assaka, 25 Km W of Goulimime, 100 m, [31°32'16" N, 7°12'42" W], 24 April 1969, *Davis, P. ;Davis, J.* 48636 (BM,E!); 13 km E of Ait Ourir, 900 m, [31°28'16" N, 7°35'18" W], 6 April 1972, *Davis 54090 B* (BM,E!); Marrakech - Gueliz, 365 m, [31°38'01" N, 8°00'33" W], May 1930, *Irethewy, A.W. s.n.* (BM!); H. 46 Km from Marrakech to Chichaoua, 400 m, [31°38'01" N, 8°00'33" W], 16 March 1969, *Davis, P. ;Davis, J.* 48249 (BM,E!); Agadir [...] près Agadir, [31°35'59" N, 7°41'09" W], 25 April 1859, *Théveneau, A. ;Wiltobat, M.D. s.n.* (K!); Mogador, [31°30'38" N, 9°45'40" W], February 1934, *Trethewy, A.W.* 58 (K!); Assaka, SW du Maroc, [31°32'16" N, 7°12'42" W], 1875, *Mardochee, R. s.n.* (K!); Agadir Agadir, [31°35'59" N, 7°41'09" W], January 1936, *Trethewy, A.W.* 93 (K!); Taroudant road to Igherm from Taurodant at Douar Askstou de Sidi Ahmed Abdullah, 620 m, [31°44'18" N, 8°48'04" W], 14 February 2007, *Jury, S.L. ;Upson, T.M.* 20684 (RAB,RNG!); Taroudant Sous, terrains incultes à Taroudant, [31°44'18" N, 8°48'04" W], 1925, *Emberger, L. s.n.* (RAB!); Jbilet, [31°49'48" N, 8°00'00" W], 11 April 1921, *Wilczek, E. s.n.* (RAB!); Attaouia ech Chaibia, Haouz oriental, [31°49'57" N, 7°18'46" W], 14 May 1969, *Pailler, F. s.n.* (RAB!); Taourirt, [31°32'17" N, 7°08'36" W], 20 April 1954, *Pujos, A. s.n.* (RAB!); culture, Taroudant en 371 x 164, [31°44'18" N, 8°48'04" W], 1 March 1973, *Peltier, J.P.* 251 (RAB!); El Kelaa des Sraghna, [32°10' N, 7°45' W], 9 February 1957, *Negre, R.* 1760 (RAB!); Agadir Agadir, 200 m, [31°35'59" N, 7°41'09" W], 25 December 1983, *Lewalle, J.* 10870 (BR!); Marrakech, roches calcaires du Gueliz, 500 m, [31°38'01" N, 8°00'33" W], 27 March 1922, *Maire, R. s.n.* (RAB!); Sarro, 2200- 2400 m, [31°31'48" N, 8°09'59" W], 13 May 1933, *Emberger, L. s.n.* (RAB!); Jbilet, sud maison forestiere de Sidi Bon Othmane, [31°49'48" N, 8°00'00" W], 17 December 1978, *Maubert, T.* 1058 (MARK!); vallée du Zat, route P31 d cimetièr e à Talatasl aprox. 4 km, [31°24'37" N, 7°31'27" W], 9 March 1980, *Maubert, T.* 1061 (MARK!); Espace vert FSSM, [31°38'01" N, 8°00'33" W], 14 May 2004, *Ouhammou, A.* 6570 (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A.* 7982 a (MARK!); Agadir na N1, depois de Arround, entre Agadir e Cap Rhir, 11 m, [31°07'33" N, 7°55'03" W], 10 April 2011, *Silveira, P.* 3132 (AVE!); Menara, near to the Airport, [31°36'48" N,

8°01'18" W], 25 March 2013, *Silveira, P. ; Gonçalves, A.C.R.S.; Ouhammou, A.* 3284 (AVE!); Glaoua, Piedmont entre Taferiate et Ait Barka (route P31), 1000 m, [31°24'36" N, 7°16'48" W], 1 April 1984, *Dobignard, A.* AD 2781 (G!); **Melilla:** Melilla, Islas Chafarinas, Rey, April 1989, *Blanco, J.E.* 170 EBC (MA!); April 1988, *Blanco, J.E.* B 34 EBC (MA!); Melilla, 5 December 1932, *Pardo y Marti* 419 (MA!); Melilla (Masusa), 25 May 1933, *Pardo y Marti* 370 (MA!); Mellila, 100 m, April 1908, *Gandonger, M.* s.n. (G!); **Oriental:** Muley Rechid, [34°59'12" N, 2°49'36" W], 13 June 1931, *Sennen, F.* ;*Mauricio, Hno.* s.n. (BM!); Beni Tuzin, [35°00'18" N, 3°32'56" W], 6 May 1934, *Sennen, F.* ;*Mauricio, Hno.* s.n. (BM,MAF!); Ulad Setut, [34°54'36" N, 2°49'48" W], 12 June 1937, *Sennen, F.* ;*Mauricio, Hno.* s.n. (BM!); Col de Jerada on road P19 between Ain-Beni-Mathar and Oujda, c. 11.8 Km N of pass and 8.5 km S Guenfouda, [34°40'53" N, 1°54'31" W], 4 May 1993, *Vogt, R.* ;*Oberprieler, Ch.* 10727 (RAB!); Debdou, champs près du camp Roummaus, 950 m, [33°58'56" N, 3°02'33" W], 2 April 1928, *Wilczek, E.* ;*Briquet, J.* ;*Dutoit, D.* 18 (RAB!); Nador, Plaine de Gareb, 6 km antes del Col de Regada, 300 m, [34°36'06" N, 3°34'37" W], 4 May 1994, *Achhal, A.* ;*Bombardó, F.* ;*Hifdi, L.* ;*Montserrat, J.M.* ;*Soler, M.* JMM 4436 4 (RNG!); Dar Drius, [34°58'37" N, 3°22'44" W], *Font Quer, P.* 811094 (BCN!); Berkane entre Taforalt e Ain Sfa, nos taludes acima do estradão (piste), 713 m, [34°48'28" N, 2°24'39" W], 10 June 2012, *Silveira, P. ; Gonçalves, A.C.R.S.* 3264 (AVE!); Nador, El Kadia (Beni Said), 397 m, [35°11'53" N, 3°03'32" W], 13 May 2014, *Silveira, P. ; Gonçalves, A.C.R.S.* 3338 (AVE!); **Rabat-Salé-Kénitra:** Rabat Temara, 50 m, [33°55'43" N, 6°54'24" W], 25 December 1982, *Lewalle, J.* 10561 (BM,SALA!); Rabat Rabat, [34°00'50" N, 6°50'39" W], 14 April 1924, *Jahandiez, E.* 36 (MA,E!); c. 45 km NNE of Kenitre on coast road, 60 m, [34°15'40" N, 6°34'49" W], 22 October 1993, *Jury, S.L.* ;*Rejdali, A.T.* ;*Taleb, A.* ;*Upson, T.M.* 12579 (BM,MA!); Rabat Sidi Elabed, Témara, 50 m, 100 m, [33°55'43" N, 6°54'24" W], 28 March 2011, *Abdelmalk Abou Dounia* ;*Tapeb* s.n. (RAB!); Rabat, [34°00'50" N, 6°50'39" W], *Emberger, L.* s.n. (RAB!); Rabat Rabat, duns d'Mehdia, [34°00'50" N, 6°50'39" W], 3 May 1957, *Sauvage, Ch.* 14026 (RAB!); in rupertr. calcaries au [...] Atlantis Medii inter Khenifra et Kasba Tadla, 700- 750 m, [34°15'40" N, 6°34'49" W], 16 April 1934, *Maire, R.* ;*Wilczek, E.* s.n. (RAB!); Rabat Rabat, [34°00'50" N, 6°50'39" W], 6 December 1924, *Emberger, L.* s.n. (RAB!); Rabat [34°00'50" N, 6°50'39" W], 22 January 1925, *Emberger, L.* s.n. (RAB!); **Souss-Massa:** Tiznit 5 km E of Tiznit, 300 m, [29°41'51" N, 9°43'54" W], 26 March 1969, *Davis, P.* ;*Davis, J.* 48698 (BM,E!); Agadir road from Tafraoute to Ain Baha, Tizi Tarkatin, 1440 m, [30°11'06" N, 8°44'33"

W], 16 February 2007, *Jury, S.L. ;Upson, T.M. 20789* (BM,RAB,RNG!); Tamri, dry limestone Gorge N of Tamri, [30°41'49" N, 9°49'19" W], 26 March 1972, *Bramwell, D. ;Richardson, I.B.K.; Murray, B.G. 222* (K,RNG!); Col du Kerdous, mountain slope E of hotel at Col du Kerdous, 1200- 1250 m, [29°32'17" N, 9°21'10" W], 17 May 1993, *Vogt, R. ;Oberprieler, Ch. 11842* (RAB!); Tiznit Sous, [...] de l'Oued Mona, aux pont de la route Agadir - Tiznit, [29°41'51" N, 9°43'54" W], 15 April 1952, *Vindt, J. 4520* (RAB!); Tiznit (SW de Tiznit), 250 m, [29°41'51" N, 9°43'54" W], 25 April 1934, *Emberger, L. s.n.* (RAB!); Agadir Ait Baha, [30°11'06" N, 8°44'33" W], 16 April 1931, *Emberger, L. s.n.* (RAB!); Agadir 550 m, [30°11'06" N, 8°44'33" W], 16 April 1931, *Emberger, L. s.n.* (RAB!); Jbel Kest, 2000 m, [29°48'15" N, 9°01'24" W], May 1934, *unclear s.n.* (RAB!); Tiznit falaises [...] près [...] (SW de Tiznit), [29°41'51" N, 9°43'54" W], 21 April 1934, *Emberger, L. s.n.* (RAB!); Agadir Ait Baha, roches greieux du Jbel Tigfert près de Agadir Tisgmist, 1600- 1800 m, [30°11'06" N, 8°44'33" W], 17 April 1931, *Emberger, L. s.n.* (RAB!); Imi n'Tanout, 900 m, [29°47'46" N, 8°53'00" W], 21 April 1929, *Maire, R. s.n.* (RAB!); S from Ersaonioa, [29°34'17" N, 9°42'53" W], *NCRPIS (USDA) PI613017 in Silveira, P. 3108* (AVE!); Essaouira, areias ao pé da lagoa antes das dunas, na estrada de acesso ... praia, [29°34'17" N, 9°42'53" W], 25 February 2010, *Castro S P37 in Silveira, P. 3079* (AVE!); Agadir a ñ 10 km de Ait Baha vindo de Agadir, 510 m, [30°11'06" N, 8°44'33" W], 13 April 2011, *Silveira, P. 3139 b* (AVE!); Agadir sous Agadir, [30°24' N, 9°36' W], 25 April 1931, *Jahandiez, E. 232* (BM,MA!); Agadir Agadir, 30 January 1950, *Paillet, F. 267-8* (RAB!); Agadir 12 April 1931, *Emberger, L. s.n.* (RAB!); Agadir 13 April 1931, *Emberger, L. s.n.* (RAB!); Agadir Agadir, Klistal S for Hotel Royal, 21 January 1970, *Kaae, N. s.n.* (C!); Had Ora, region d' Essaouira, station experimental Jatro Med, 210- 24 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7988* (MARK!); Agadir N8, entre Agalgal e Argana (caminho entre Marrakesh e Agadir), 1037 m, [30°56' N, 9°04' W], 9 April 2011, *Silveira, P. 3129* (AVE!); Agadir ca. de 20 km a S de Agadir, 72 m, [30°09'00" N, 9°32'31" W], 11 April 2011, *Silveira, P. 3135* (AVE!); **Tanger-Tétouan-Al Hoceïma**: Tanger Tanger, [35°46'50" N, 5°48'49" W], April 1921, *Pau, C. s.n.* (MA!); Chefchaouene c. Xauen, 650 m, [35°10'08" N, 5°15'49" W], 26 April 1928, *Font Quer, P. 408* (MA,BM,BC!); [35°34'18" N, 5°21'49" W], 10 May 1921, *Sampaio, G. s.n.* (MA!); Tiganimin (Bocoia), ad margines agrorum, [35°00'34" N, 3°59'15" W], 3 March 1929, *Font Quer, P. s.n.* (MA!); Beni Gorfet, [35°15'29" N, 5°50'00" W], February 1925, *Vidal y Lopez, M. s.n.* (MA!); WN, 10 Km S of Larache, Oula-Hammou, 15 m, [35°06'59" N, 6°09'25" W], 28 March 1974, *Sutton ;Miller; Russel 53* (BM!);

Tanger to Larache, [35°06'59" N, 6°09'25" W], 14 April 1936, *Simpson, N.D.* 36013 (BM!); Tanger [35°46'50" N, 5°48'49" W], 30 March 1916, *Roffey, J. s.n.* (BM!); Tanger ex horta, origin Tangier, [35°46'50" N, 5°48'49" W], 25 August 1922, *Roffey, J. s.n.* (BM!); Larache, lugares incultos, [35°06'59" N, 6°09'25" W], 13 April 1992, *Galan, A. ; Molina, J.A.; Sardinero, S. s.n.* (MAF!); Azemmour, estrada vinda da vila em direção ... praia, dunas ... esquerda antes da ultima rotunda antes da praia, [34°57' N, 4°51' W], 24 February 2010, *Castro S P35 in Silveira, P.* 3078 (AVE!); **cultivated**: Ker Ker, pl.cult. de semillas, 1936, *Sennen, F. s.n.* (MA!); **unclear**: Trouvé dans le parc de M', April 1866, *Mouillefarine, E. s.n.* (RAB!); trouvé à Cery sur Sané [?], 14 November 1857, *Mouillefarine, E. s.n.* (RAB!); rocaïlles calcaïres du Jbel [...], 600 m, *Maire, R. s.n.* (RAB!); **unknown**: Marruecos, April 1910, *Pau, C. s.n.* (MA!); : barranco de Sidi Guariach (Melilla), 26 May 1915, *Caballero, A. s.n.* (MA!); Pau, C. s.n. (MA!); 11 February 1926, *Vidal y Lopez, M.* 587 (MA!); 10 May 1901, *Pau, C. s.n.* (MA!); 00: Oued Laou, [35°26'14" N, 5°04'54" W], *Vidal y Lopez, M. s.n.* (MA!); ?: Bin el Ouidane (Military Poste), 800- 1070 m, 1925, *Lynes, H. s.n.* (BM!); Tlata Ida Gougmar, carretera S-7076, 860 m, 5 March 2001, *Arrington, J. ; Cano, M.A.; Muñoz, J.; Pando, P. s.n.* (MA!); M(B)ar-Zataf, June 1934, *Sennen, F. ; Mauricio, Hno. s.n.* (MA!); 64 km from Marrakech on road to Ouarzazate, 30 km from Ait Ourir towards Tizi-n-Tichka, just beyond Touama, 1350 m, 3 June 2002, *Jury, S.L. ; Lafkih, M.A.; Carine, M.; Rumsey, F.J.; Rutherford, R.W.* 19557 (MA,RNG,IAV,BM!); Hab. c Tiganimin (Bocoia), ad margines agrorum, 200 m, 3 March 1929, *Font Quer, P.* 453 (BM,RAB,GDA!); 17 km SW of Rabat, S bank of Oued Youem, 30 m, 8 March 1969, *Lambert, M.R.K.* 6 (BM!); Shedma, 29 April 1871, *Hooker s.n.* (K!); north Morocco, 1886, *Moseley, H.N. s.n.* (K!); Kaiba, 1000 m, March 1927, *Emberger, L. s.n.* (RAB!); unknown s.n. (RAB!); unknown s.n. (RAB!); unknown s.n. (RAB!); 19 April 1839, unknown s.n. (RAB!); 21 March 53, unknown s.n. (RAB!); VI/2 Sous interieur. Station horticole d'Ain Chaïl, 10 February 1951, *Rungs, Ch. s.n.* (RAB!); Jachere en avant de la A'gusa Amiria, 1.5 km à l'W des Ait Mousa (Forêt d'Admin, sous), 25 April 1971, *Peltier, J.P. s.n.* (RAB!); January, unknown s.n. (RAB!); Taroudant roches calcaïres dans les forets d'Argania au less urder gué de Tadderast, 30 April 1934, *Emberger, L. s.n.* (RAB!); Tiolet, D. s.n. (MARK!);

C. davisii A.C. Gonç. & P. Silveira *sp. nov.*

Additional specimens examined: MOROCCO. **Fès-Meknès:** c. 6 km SE of Sidi Abdallah around Jbel Tazzeka, 340 m, [34°20'13" N, 4°37'40" W], 15 June 1992, *Optima Inter V 1014* (RNG!, PAL!); Taza, road S from Taza around Jbel Tazzeka, Gorge de Sidi Abdallah, 530 m, [34°20'13" N, 4°37'40" W], 29 May 2002, *Jury, S.L.; Lafkih, M.A.; Brown, R.; Carine, M.; Rumsey, F.J. 19431* (BM!, RNG!); Massif du Jbel Tazzeka, entre amont des Gorge de l'Oued Zireg, 520 m, [34°20'13" N, 4°37'40" W], 1 June 2008, *Dobignard, A. AD 15006* (G!); Taza, Jbel Tazzeka, 500 m [34°20'13" N, 4°37'40" W], 9 June 2012, *Silveira, P.; Gonçalves, A.C.R.S. 3263* (AVE!);

C. eckerleinii Ohle (1975 a: 8)

Additional specimens examined: MOROCCO. **Casablanca-Settat:** Ain Leuh, estrada P7311, perto de l'Oued Oum-er-Rbia, 1505 m [33°16'48" N, 5°20'23" W], 8 May 2014, *Silveira, P.; Gonçalves, A.C.R.S. 3330* (AVE!); **Fès-Meknès:** Azilal, 1923, *Jahandiez, E. s.n.* (MPU!); Azilal, rochers calcaires, à Ifrane, 1250 m, 7 April 1923, *Jahandiez, E. 98 bis* (BM!); Kef-el-Ghar, 1400 m, [34°30'28" N, 4°15'36" W], April 1924, *Humbert, H. s.n.* (BC, P!); Ifrane (Rox), 1220 1925 m, *Lynes, R.A.H. 186* (BM!); Ifrane, 25 November 1932, *Sauvage, Ch. s.n.* (RAB!); Timahdite, 1524 m, [33°14'12" N, 5°03'34" W], 22 April 1934, *Davis, P.H. 519* (K,E!); taludes nord du Jbel Kandar, [33°45'44" N, 4°57'56" W], 3 April 1947, *Vindt, J. 320* (RAB!); Ifrane, 24 August 1947, *Vindt, J. 927* (RAB!); 1524 m, 26 March 1952, *Bannerman, D.A. s.n.* (BM!); Ifrane, felsenhänge nahe des Ortes, kalkarmes Gestein, [33°20' N, 5°15' W], 15 May 1955, *Meusel, H. s.n.* (HAL!); Ifrane, 5 August 1955, *Paillet, F. 840* (RAB!); between El-Hajeb and Ifrane, 18 km NW Ifrane, 25 May 1961, *Wilde, D.; Wilde, P.A.; Dorgelo, J. 2547* (BM!); an der Strabe Meknès - Ifrane (on the road Meknès - Ifrane), [33°20' N, 5°15' W], 1970, *Eckerlein, H. s.n.* (HAL!); 8 km au N de Ifrane, par Bou Ifekhsi, 1600 m, 5 June 1971, *Bocquet, G. 10397* (BM!); 3 km north of Ifrane on the road to Immouzer, 1200 m, 16 July 1976, *Humphries, C.J.; Humphries, A.R. 2* (BM!); Ifrane, 1600 m, 29 April 1979, *Lewalle, J. 9032* (BM!); Foug Kheneg, 1950 m, [33°14'12" N, 5°03'34" W], 29 June 1980, *Titolet, D. s.n.* (MARK!); Timahdite, 1200 m, [33°14'12" N, 5°03'34" W], 13 April 1984, *Lewalle, J. 10923* (BM,BR,RAB!); Ifrane, 1000 m, 8 November 1987, *Lewalle, J. 11788* (BM,MA!); Massif du Kandar S Sefrou, road P20

between Sefrou and Boulemane, limestone cliffs near the street c. 7.5 Km S of Sefrou, 1150 m, [33°45'44" N, 4°57'56" W], 28 April 1993, *Vogt, R.; Oberprieler, Ch.* 38 613 (RAB!); Fes, Jbel Zalagh, cumbres y umbria, junto a la pista al repetidor de TV, 800 m, 900 m, [34°06'29" N, 4°57'36" W], 11 May 1994, *Montserrat, J.M. et al.* JMM 5225 2 (BC!); 1 km E from Timahdite town on Midelt to Azrou main road, minor road to Almis, 1800 m, [33°14'12" N, 5°03'34" W], 27 April 1995, *Jury, S.L.; Lafkih, M.A.; Haila, M.; Wilson, R.G.* 16970 (K!); 31 km from Ifrane, 48 km from Sefrou, 25 km from Boulemane, at junction of Ifrane road, 1600 m, [33°27' N, 4°51' W], 27 April 1995, *Jury, S.L.; Lafkih, M.A.; Haila, M.; Wilson, R.G.* 16989 (K,RNG!); Ifrane, carretera a Immouzer, 1700 m, 13 June 1996, *Mateos, M.A.; Montserrat, J.M. s.n.* (BC, RNG!); Timahdite, rocas de Foug Kheneg, 1920- 1980 m, [33°14'12" N, 5°03'34" W], 13 June 1996, *Mateos, M.A.; Montserrat, J.M. s.n.* (BC!); S de Timahdite, 1890 m, [33°14'12" N, 5°03'34" W], 26 June 1997, *Aedo, C.; Güemes, J.; Garmendia, F.M.; Pedrol, J.; Rico, E.; Sequeira, M.* CA 4251 (MA,MARK!); limestone outcrop 3 km N of Ifrane on the N8 road to Fes, 1621 m, [33°33'26" N, 5°05'51" W], 27 April 2010, *Silveira, P.* 3064 (AVE!); Timahdite, rocas de Foug Kheneg, 1920- 1980 m, [33°14'12" N, 5°03'34" W], 8 May 2014, *Silveira, P.; Gonçalves, A.C.R.S.* 3331 (AVE!); 31 km from Ifrane, 48 km from Sefrou, 25 km of Boulemane, at junction of Ifrane road, 1572 m, [33°27'18" N, 4°51'25" W], 8 May 2014, *Silveira, P.; Gonçalves, A.C.R.S.* 3332 (AVE!); Fes Jbel Zalagh, 895 m, [34°06'19" N, 4°58'11" W], 9 May 2014, *Silveira, P.; Gonçalves, A.C.R.S.* 3333 (AVE!); **Rabat-Salé-Kénitra:** Herkunft, Jardin Botánico Institute Cherifien, Rabat, [34°00'50" N, 6°50'39" W], 7 November 1967, *Ohle, H. s.n.* (HAL!);

C. fontquerii A.C. Gonç. & P. Silveira *sp. nov.*

Additional specimens examined: no other similar specimens were found.

C. lanzae Maire (1928a: 138)

Additional specimens examined: MOROCCO. **Drâa-Tafilalet:** Taroudant Ait-Yazza, S of Ait-Yazza, 257 m, [30°28'35" N, 8°48'03" W], 26 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A.* 3292 (AVE!); **Souss-Massa:** nordöstlich von Agadir (to the NE of Agadir), Tirkou, [30°38'22" N, 9°11'44" W], 1931, *Maire, R. s.n.*

(JE!); Südmarokko, bei Tirkou, [30°38'22" N, 9°11'44" W], 1931, *Maire, R. s.n.* (JE!); vallée des Aït-Moussa, arganiaies pierreuses près de Tirkou (loco classico), 500- 600 m, [30°38'22" N, 9°11'44" W], 14 April 1931, *Maire, R. 2574* (BM,BC,Z!); Taroudant, Tiout, [30°23'26" N, 8°41'33" W], 16 April 1931, *Jahandiez, E. 153* (BM,RAB!); Taroudant, S side of Sous river, 200- 250 m, [30°21'50" N, 9°36'18" W], 3 April 1972, *Davis 54014* (BM,E!); Taroudant gravel on the margins of the river Tiout, 424- [30°23'48" N, 8°42'17" W], 26 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A. 3293 a* (AVE!);

C. maroccana (Ball) Ball (1878: 517)

Additional specimens examined: MOROCCO. Ex regione inferiore Atlantis Majoris in convalle Aït Mesan, 1200-1400 m, 12 May 1871, *Ball, J. s.n.* (BM, BM!); South Morocco, Greater Atlas, May 1871, *Hooker s.n.* (K!); ex rupibus arenaceis Atlantis Majoris in convalle Aït Mesan, 1400-2000 m, 13 May 1871, *Ball, J. s.n.* (K!); Gurgouri, Reraia, May 1871, *Hooker s.n.* (K!); Aït Mohand, vallée Oued Aghzifene, entre Tasguelft et Ben Cherro, 1240 m, 4 June 1997, *Dobignard, A. AD 10420* (G!); **Béni Mellal-Khénifra:** Demnat, [31°43'59" N, 7°00'09" W], 1926, *Maire, R. s.n.* (RAB!); Kerrouchen, 1700 m, [32°47'47" N, 5°19'08" W], 19 May 1925, *Jahandiez, E. 271* (MA!); Assareg, [32°03'25" N, 6°52'01" W], 12 September 1955, *Newbould, J. 363* (BM!); in Atlantis Majoris montibus supra urbem Demant, Tirfist in rupest arenaris, 2100 m, [31°43'59" N, 7°00'09" W], 28 July 1926, *Maire, R. s.n.* (RAB!); High Atlas mountains, [32°00' N, 6°00' W], *NCRPIS (USDA) PI603110 in Silveira, P. 3103* (AVE!); **Drâa-Tafilalet:** carretera de Ouarzazate a Zagora, entre Aït-Saoun y Tizi-n-Tiniffit, 1645 m, [30°44'02" N, 6°37'53" W], 28 May 1997, *Aedo, C.; Güemes, J.; Muñoz, F.; Pedrol, J.; Rico, E.; Sequeira, M. s.n.* (MA!); 16 km N of Tazenakht, 69 km SW of Ouarzazate, near Tizi-n-Backoum, [30°34'31" N, 7°12'11" W], 23 March 1994, *Jury, S.L.; Tahiri, B.; Upson, T.M. 14505* (BM,K!); 15 km N of Tinerhir (Tingher), Gorge du Todra, 1405 m, [31°36'29" N, 5°34'42" W], 25 March 1994, *Jury, S.L.; Tahiri, B.; Upson, T.M. 14554* (BM!); Gorge de Moulay Brahim, près Asni, 1000 m, [31°26'27" N, 4°16'41" W], 7 April 1929, *Emberger, L. s.n.* (RAB!); roches de la [...] de l'Adrar Mkorn, 2300 m, [31°36'36" N, 5°39'36" W], 28 April 1989, *Jacquemoud, F. 4448* (G!); **Fès-Meknès:** environs de Skoura, gara de Tazouta, 1200 m, [33°33'31" N, 5°41'44" W], 18 March 1958, *Sauvage, Ch. 14471* (COI!); Jbel Bouiblane, sersant S, sousle Tizi Bou

Zabel, 2180 m, 30 May 2008, *Dobignard, A. AD 14938* (G!); **Marrakech-Safi:** Steilhänge Zwischen Kasba d'Asni und Aït Ali, [31°14'47" N, 7°58'44" W], 8 May 1955, *Meusel, H. s.n.* (HAL!); Rheraya, [31°18'20" N, 7°55'11" W], 1921, *Jahandiez, E. s.n.* (RAB!); Glaoua, [31°24'36" N, 7°16'48" W], 1921, *Maire, R. s.n.* (RAB!); Ourika, [31°11'27" N, 7°46'16" W], 1926, *Emberger, L. s.n.* (RAB!); Arround, [31°07'33" N, 7°55'03" W], 1922, *Maire, R. s.n.* (RAB!); 21 km from Asni on road to Tizi-n-Test, Taroudannt 152 km, 980 m, [31°07' N, 8°07' W], 20 July 1989, *Lafkih, M.A.; Jury, S.L.; Peris, J.B.; Stübing, G. 750* (BM,MA!); Asni, c. 30 miles S Marrakech, High Atlas foothills, Asni - Imlil road, 1372 m, [31°14'47" N, 7°58'44" W], 22 April 1961, *Lawrence, P.N. 1* (BM!); S side of Tizi-n-Test pass, 1900 m, [30°51'53" N, 8°22'41" W], 31 March 1969, *Davis, P.; Davis, J. 48944* (BM,E!); Jbel Bou Ourioul above Tizi-n-Tichka, 2500-3000 m, 10 May 1937, *Chaworth-Musters, J. 235* (BM!); in valley on road from Tizi-n-Test, [30°51'53" N, 8°22'41" W], 23 March 1952, *Bannerman, D.A. s.n.* (BM!); Igherm, 1750 m, [31°24'51" N, 7°28'26" W], 29 March 1969, *Davis, P.; Davis, J. 48878* (BM,E!); cliffs on the Asni - Jouhak road, [31°14'47" N, 7°58'44" W], 24 April 1936, *Simpson, N.D. 36426 a* (BM!); [31°14'47" N, 7°58'44" W], 24 April 1936, *Simpson, N.D. 36426 b* (BM!); Asni - Kasba - Gondafa, [31°14'47" N, 7°58'44" W], 10 April 1931, *Godman, E.M 188* (BM!); region of Imlil, South of Marrakech, open land, [30°58'21" N, 8°20'35" W], 20 August 68, *Goodchild, P. 68* (BM!); SW from Asni along road to Tizi-n-Test, near Imigdal, 1200 m, [31°14'47" N, 7°58'44" W], 20 June 1997, *Griffiths, A.J.K.; Aït Lafkih, M. 18057* (BM!); 3 - 5 km N of Igherm, 1650 m, [31°24'51" N, 7°28'26" W], 2 April 1972, *Davis 54005* (BM,E!); Amlougui, alrededores del pueblo, [31°14'06" N, 7°39'02" W], *Herrero, A.; et al. AH, 3281* (MA!); inter Marrakech et saltum Tizi-n-Test dictum, pr. oppidulum Talâat n'Yakoub, 1170 m, [30°51'53" N, 8°22'41" W], 27 May 1985, *Blanché, C.; Fernández Casa, J.; Molero, J.; Montserrat, J.M.; Romo, A. 9449* (MA!); Asni, 7 Km from Tahanaoute on road to Oukaimeden, 1200 m, [31°14'47" N, 7°58'44" W], 13 June 1974, *Reading Univ./BM.Expedition 671* (BM!); Asni, 1830 m, [31°14'47" N, 7°58'44" W], 18 September 1955, *Newbould, J. 460* (BM!); Amizmiz + Tizi Hemiri (Tizi El Mri), [31°13'00" N, 8°13'55" W], October 1888, *Thomson, J. s.n.* (K!); on the road between Asni and Jouhak, [31°14'47" N, 7°58'44" W], 24 April 1936, *Simpson, N.D. 36426* (K!); South Morocco. Greater Atlas, Seksaoua, [31°00'12" N, 8°40'48" W], May 1871, *Hooker s.n.* (K!); Rheraya, [31°18'20" N, 7°55'11" W], June 1872, *Rein, Dr.; Fritsch, K. 332* (K!); Rheraya, 2134 m, [31°18'20" N, 7°55'11" W], May 1871, *Hooker s.n.* (K!); Tafraoute, cliffs of river Gorge near Talate - Azougarn on north

edge of Sahara, 29 March 1972, *Bramwell, D.; Richardson, I.B.K.; Murray, B.G.* 432 (K!); Ourika, 1600 m, [31°11'27" N, 7°46'16" W], 1 September 1925, *Emberger, L. s.n.* (RAB!); Marrakech, inter Marrakech et saltum Tizi-n-Test dictum, pr. oppidulum Talâat n'Yacoub, 1170 m, [30°51'53" N, 8°22'41" W], 27 May 1985, *Blanché, C. ;Fernández Casa, J.; Molero, J.; Montserrat, J.M.; Romo, A.* 9449 (BCN!); Agadir, Ida-ou-Gnidif, 1300 m, [31°18'29" N, 9°25'54" W], 27 May 1991, *Molero, J.; Vicens, J.* PV 177 91 (BCN!); Amizmiz, in rupestribus, in valle supra Pugar [?], 1200 m, [31°13'00" N, 8°13'55" W], 25 May 1926, *Lindberg, H.* 2635 (LD!); Sudseite der PabStrabe zum Tizi-n-Test, 1800 m, [30°51'53" N, 8°22'41" W], 14 April 1967, *Merxmüller, H.; Oberwinkler, F.* 22476 (LD!); Tizi-n-Tichka, 2 May 1982, *Archibald, J.C.; Blanchard, J.W.; Salmon, M.R.* 4534 (E!); Marrakech, Tensift, Al Haouz, desvio en carretera de Marrakech a Ouarzazat, cerca de Col de Tichka hacia Imouzer de Glaoua, 2382 m, [32°01'59" N, 9°20'39" W], 12 June 2009, *Calvo, J.; Gonzalo, R.; Quintanar* 1215 (MARK,MA!); pouco depois de Tizi-n-Test em direção a Asni, 1836 m, [30°51'08" N, 8°21'56" W], 13 April 2011, *Silveira, P.* 3142 (AVE!); p. Tazalt, em direção a Asni, vindo de Tizi-n-Test, 1250 m, [30°58'52" N, 8°13'33" W], 13 April 2011, *Silveira, P.* 3143 (AVE!); em direção a Asni, vindo de Tizi-n-Test, entre Ljoukak e Toug el Kheir, 1242 m, [30°02'20" N, 8°08'16" W], 13 April 2011, *Silveira, P. s.n.* (AVE!); ca. 7 km a N de Asni em direção a Marrakesh, 1131 m, [31°17'55" N, 7°57'52" W], 13 April 2011, *Silveira, P.* 3144 (AVE!); leaving Igherm to Taliouine, 1854 m, [30°07'39" N, 8°23'57" W], 27 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A.* 3297 (AVE!); 1569 m, [30°41'16" N, 7°16'18" W], 27 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A.* 3298 (AVE!); on the N9 almost at Tizi-n-Tichka, coming from Tachokchte, 1351 m, [31°24'53" N, 7°23'43" W], 27 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A.* 3300 (AVE!); vallée Oued Ourika, entre Irhef et Setti Fatma, 1350 m, [31°34'38" N, 7°47'30" W], 2 May 2010, *Dobignard, A.* AD 15475 (G!); **Oriental:** maison foresttiere Talate-n-Nos, between Youkak and Asni, road to Taroudant - Marrakech, [33°02'53" N, 2°00'15" W], 7 May 1961, *Wilde, J. ;Wilde, P.; Dorgelo, J.* 2161 (BM!); **Souss-Massa:** Taroudant Tachochte, [30°38'16" N, 7°45'47" W], 1936, *Balls, E.K. s.n.* (RAB!); Toubkal - Gebiet, Felshänge bei Imlil, 1300 m, [30°02'35" N, 9°01'33" W], 18 July 1981, *Meusel, H. s.n.* (HAL!); Aït Tidely, 1000 m, [30°43'53" N, 8°08'58" W], 11 September 1955, *Newbould, J.* 313 (BM!); Taroudant Tachokcht, 6600 ft (c. 2000 m), [30°38'16" N, 7°45'47" W], 8 June 1936, *Balls, E.K.* B 2691 (BM,K,RAB,E!); N of Tafraoute, Jbel Lekst, W end [?], 1500 m, [29°48'15" N,

9°01'24" W], 8 June 1974, *Reading Univ./BM.Expedition 439* (BM!); Taroudant Streamside at Tachokchta, 2000 m, [30°38'16" N, 7°45'47" W], 27 February 1967, *Holliday, L.G. G 3 c&d* (BM!); 30 km NE of Tafraoute, 1000 m, 4 April 1974, *Miller; Russel; Sutton 699* (BM!); Tafaoute to Souk Tleta de Tasserirt, 1700 m, 27 March 1969, *Davis, P.; Davis, J. 48804* (BM,E!); Taroudant Tachokcht, 1800 m, [30°38'16" N, 7°45'47" W], 9 May 32, *unknown s.n.* (RAB!); vallée Azzaden, Reserve Tiz Moun, cemetery Tizi Oussum, [29°36'23" N, 9°09'21" W], 15 June 1990, *Ouhammou, A. 7933* (MARK!); Taroudant Tachokcht, 1909 m, [30°47'48" N, 7°31'38" W], 27 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A. 3299* (AVE!); Jbel Siroua (Jbel Sirwa) GA central versant sud, Tagadirt n'Oumzouar, 2 km d'Eç Sour, 1900 m, [30°42'15" N, 7°37'20" W], 29 April 1993, *Dobignard, A. AD 8900* (G!);

C. meuselii Ohle (1975 a: 6)

Additional specimens examined: MOROCCO. **Fès-Meknès:** Meknes Zerhoun, [34°02'06" N, 5°32'21" W], 15 September 1988, *Wittig, A.-K. s.n.* (AVE!); Jbel Zerhoun (Massif du Zerhoun, Felsen des Jbel Takerma), [34°02'06" N, 5°32'21" W], 1932, *Sauvage, Ch. 6235* (MPU!); Meknes Zerhoun - Moussoua, nordnordöstlich (N - NW) er Jbel Takerma, [34°02'06" N, 5°32'21" W], 1932, *Sauvage, Ch. s.n.* (RAB!); Meknes S Vorrifzone, N Moulay Idriss, Kalkfelsen Bei Beni-Ammar, SW exponiert, Lias-Kalk der Vorrifzone, 650 m, [34°05'40" N, 5°25'59" W], 8 July 1981, *Meusel, H. s.n.* (HAL,AVE!); Meknes Zerhoun, c. 25 km due NNE of Meknes road from Moulay Idriss to N'Zalat-Beni-Ammar, 870 m, [34°05'40" N, 5°25'59" W], 5 June 1994, *Jury, S.L.; Lafkih, M.A.; Tahiri, B. 15026* (BM!); Meknes Zerhoun, Moussoua, [34°02'06" N, 5°32'21" W], 23 December 1932, *Sauvage, Ch. s.n.* (RAB!); Meknes pr. Beni-Ammar, 800 m, [34°05'40" N, 5°25'59" W], 6 May 1990, *Blanca, G.; Lazaro, R.; Navarro, P.; Rozas, L. s.n.* (GDA!); Meknes Beni-Ammar pr. Moulay Idriss, [34°05'40" N, 5°25'59" W], 22 April 1988, *Galiano, E.F.; Cabezudo, B.; Blanca, G.; Dominguez, E. s.n.* (GDA!); Meknes between Moulay Idriss and N'Zalat-Beni-Ammar, 852 m, [34°05'40" N, 5°25'59" W], 26 April 2010, *Silveira, P. 3063* (AVE!); **Tanger-Tétouan-Al Hoceïma:** Chefchaouene Zoumi, [34°48'12" N, 5°20'40" W], 22 April 1988, *Galiano, E.F.; Cabezudo, B.; Blanca, G.; Dominguez, E. s.n.* (MGC!);

C. murbeckii Lanza ex Murb. (1923: 59)

Additional specimens examined: MOROCCO. **Marrakech-Safi:** Marrakech, [31°38'01" N, 8°00'33" W], 1871, *Hooker s.n.* (K!); prope urbem Marrakech, [31°38'01" N, 8°00'33" W], 1921, *Murbeck, S. s.n.* (LD!); H, 32 Km from Marrakech to Chemaia, 450 m, [31°38'01" N, 8°00'33" W], 7 April 1972, *Davis 54220 A* (BM,E!); Jbel Aziwel, [31°38'01" N, 8°00'33" W], 6 August 1884, *Ibrahim, H. s.n.* (K!); Marrakech (route de Casa), 500 m, [31°38'01" N, 8°00'33" W], 17 February 1985, *Lewalle, J. 11150* (BR,RNG!); Marrakech, Amizmiz - Marrakech (S 507), NE ufer des Stausees Cavagnac bei Lalla Takerkoust, 4 km SE Stamauer, Trochenhänge, 750 m, [31°21'42" N, 8°08'01" W], 24 April 1987, *Aurich, Ch.; Förther, H. 31 22 N* (BR!); Jbilet [...], route Casa - Marrakech, 14 May 1948, *Sauvage, Ch. s.n.* (RAB!); Haouz Jbilet, 11 April 1931, *Emberger, L. s.n.* (RAB!); in montibus Jbilet, 11 April 1931, *Emberger, L. s.n.* (RAB!); In H. Bol. Lund colui e seminibus plantas a 1921 a me prope urbem Marrakech (Imper. Marocc.) lecto., [31°38'01" N, 8°00'33" W], June 1923, *Murbeck, S. s.n.* (LD!); [31°38'01" N, 8°00'33" W], June 1923, *Murbeck, S. s.n.* (LD!); in lapidosis siliceis montium Jbilet, 600 m, 11 April 1931, *Maire, R. s.n.* (LD!); Jbilet, sud maison forestiere de Sidi Bou Othomane, 27 December 1979, *Maubert, T. 1056 b* (MARK!); Jbilet, maison forestiere de Sidi Bou Othomane, 27 December 1979, *Maubert, T. 1057* (MARK!); Barrage Lalla Takerboust, [31°21'42" N, 8°08'01" W], 8 May 1980, *Cabanis, Y. s.n.* (MARK!); Jbilet, near to the house of the gazele reserve, 624- [31°52'09" N, 7°57'08" W], 25 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A. 3280* (AVE!); S of Barrage Lalla Takerboust, 729 m, [31°21'36" N, 8°09'46" W], 25 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A. 3287* (AVE!); North of Barrage Lalla Takerboust, [31°23'57" N, 8°06'01" W], 25 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A. 3288* (AVE!); Haut de Rheraya vers Aremd, 1850 m, [31°18'20" N, 7°55'11" W], 26 June 1983, *Dobignard, A. AD 2295* (G!); **cultivated:** cult. in Horto Botanico Halensi, 21 October 1965, *Ohle, H. s.n.* (HAL!); In Horto bot. Lund. colui, e seminibus plantae a que a. 1921 prope urbem Marrakech lectae, 17 June 1924, *Murbeck, S. s.n.* (K!); H. Bot. Lund [...] Semina e planta a 1921 ad Marrakech (Aviation) lecta, 12 July 1923, *Murbeck, S. s.n.* (RAB!); In HB. Lund colui - semina e Marrakech, 5 July 1923, *Murbeck, S. s.n.* (LD!); 5 July 1923, *Murbeck, S. s.n.* (LD!); In HB. Lund colui - semina e planta prope Marrakech a 1921 lecta, 12 July 1923, *Murbeck, S. 4* (LD!); In HB. Lund colui - semina e planta a 1921 prope Marrakech lecta, 12 July 1923,

Murbeck, S. s.n. (LD!); **unclear**: [...] au SSE d'El Maaser, Forêt d'Admin, 14 April 1972, *Peltier, J.P. 163* (RAB!);

C. pinnatiloba Maire (1928c: 57) A.C. Gonç. & P. Silveira *comb. nov.*

Additional specimens examined: MOROCCO. **Guelmim-Oued Noun:** Sidi Ifni Südgrenze von Ifni, Goulimine, Notfia-Piste, Tantan, [29°22'47" N, 10°10'23" W], 7 May 1967, *Eckerlein, H. s.n.* (HAL!); Sidi Ifni a ñ 35 km N de Sidi Ifni, 256 m, [29°22'47" N, 10°10'23" W], 11 April 2011, *Silveira, P. 3137* (AVE!); Sidi Ifni 256 m [29°22'47" N, 10°10'23" W], 11 April 2011, *Silveira, P. 3138* (AVE!); Sidi Ifni Plage Lugzira, ñ 10 km N Sidi Ifni, 9 m, [29°22'47" N, 10°10'23" W], 11 April 2011, *Silveira, P. 3139 a* (AVE!); Tekna vallée de l'Oued Drâa, 22 km NE de Tantan, 50 m, [28°25'48" N, 11°04'48" W], 17 April 1988, *Dobignard, A. AD 6113* (G!); **Marrakech-Safi:** Sidi Ifni above Tamara (Tamanar), 610 m, [31°03'42" N, 9°45'00" W], 1952, *Bannerman, D.A. s.n.* (BM!); Agadir SW Oued Massa, between Agadir and Tiznit, 10 m, [31°35'59" N, 7°41'09" W], 19 March 1972, *Davis 53505 A* (BM!); Agadir, [31°35'59" N, 7°41'09" W], February 1934, *Trethewy, A.W. 85* (K!); Agadir [31°35'59" N, 7°41'09" W], March 1935, *Trethewy, A.W. 198* (K!); Agadir [31°35'59" N, 7°41'09" W], January 1936, *Trethewy, A.W. 94* (K!); Agadir Tifnit valley, 1500 m, [31°35'59" N, 7°41'09" W], 16 April 60, *Mather, D.C. 40* (K!); Agadir, [31°35'59" N, 7°41'09" W], March 1935, *Trethewy, A.W. 120* (K!); Agadir [31°35'59" N, 7°41'09" W], March 1935, *Trethewy, A.W. 93* (K!); Agadir 150 m, [31°35'59" N, 7°41'09" W], 14 April 1979, *Vanden Berghen, C. s.n.* (BR!); Sidi Ifni In arganietis ad Sidi-Medirt prope Tamanar, solo calcareo, 400 m, [31°03'42" N, 9°45'00" W], 2 April 1922, *Maire, R. s.n.* (MPU!); **Souss-Massa:** Agadir SW, Cap Rhir, 30 m, [30°37'36" N, 9°53'26" W], 1 April 1972, *Davis 53950* (BM,RNG,E!); Ouarzazate, Cifermit et Ida-Oubakil, [30°45'34" N, 8°33'15" W], 1876, *Mardochee, R. s.n.* (K!); Agadir Souk el Arba de Ait Baha, [30°11'06" N, 8°44'33" W], 1 April 1974, *Peltier, J.P. 509* (RAB!); Agadir Falaise maritimes du Cap Rhir, [30°37'36" N, 9°53'26" W], 20 April 1971, *Peltier, J.P. 863* (RAB!); Agadir entre Agadir e Cap Rhir, Arround, 27 m, [30°37'36" N, 9°53'26" W], 10 April 2011, *Silveira, P. 3130* (AVE!); Agadir cerca de 2.6 km antes de chegar ao farol de Cap Rhir vindo de Agadir, 12 m, [30°37'36" N, 9°53'26" W], 10 April 2011, *Silveira, P. 3134* (AVE!); Tiznit AA littoral, collines à 15 km SW de Tiznit, 300 m, [29°41'51" N, 9°43'54" W], 16 April 1989, *Dobignard, A. AD 6586* (G!); Tiznit Agadir, collines sublittorales 15 km au SW de Tiznit,

[29°41'51" N, 9°43'54" W], 16 April 1989, *Jacquemoud, F.* 3985 (G!); Agadir Reraya, rocailles calcaires près d'Adar-ou-Aman, 500- 600 m, [30°14'49" N, 8°51'05" W], 22 July 1922, *Maire, R. s.n.* (MPU!); Agadir, [30°24' N, 9°36' W], March 1935, *Trethewy, A.W.* 121 (K!); Agadir, Talbz!, 6 February 1949, *Paillet, F. s.n.* (RAB!); Agadir, 12 September 1942, *Rungs, Ch. s.n.* (RAB!); Agadir Sous, Agadir, plateau - à Euphorbia, 8 April 1952, *Vindt, J.* 4166 (RAB!); Agadir ravin audessus d'Agadir, 20 March 1949, *Paillet, F.* 70 (RAB!); Agadir au 50.000 eme, en 388.5 x 102, Argania et Acacia gummifera sovivant, 17 April 1975, *Peltier, J.P.* 688 (RAB!); Agadir 40 km N of Agadir to Tamri, 50 m, 8 May 1982, *Davis; King D* 68090 (E!); Agadir Agadir-n-Ighir, 150 m, 3 April 1926, *Maire, R. s.n.* (MPU!); **unclear**: Forêt d'Admin 111x351, 4 March 1974, *Peltier, J.P.* 455 (RAB!);

C. stellata Cavanilles (1791, 3)

Additional specimens examined: MOROCCO. **Béni Mellal-Khénifra:** Safi, north of Safi, [32°40'00" N, 6°13'15" W], 24 February 1952, *Bannerman, D.A. s.n.* (BM!); near Demnate, outshits [...] pottery village dry roadside [...], [31°43'59" N, 7°00'09" W], 22 March 1958, *Whiting, M.M.; Richmond, K.* 21 (K!); Fes [...] Bou Ouchan entre Meaziz et Teddes, [32°24'34" N, 5°35'54" W], 20 April 1949, *Sauvage, Ch.; Vindt, J.* 7330 (RAB!); Kasbah Tadla, Tadla, [32°54'25" N, 6°46'58" W], 28 April 1921, *Jahandiez, E. s.n.* (RAB!); **Casablanca-Settat:** Fedhala, 0 m, [33°42'24" N, 7°23'40" W], February 1930, *Irethioy, A.W. s.n.* (BM!); [33°42'24" N, 7°23'40" W], March 1934, *Trethewy, A.W.* 225 bis (K!); Sidi Bou Ziana, [33°29'22" N, 7°44'33" W], 12 May 1913, *Pitard, C.J.* 2057 (K!); Settat Berrechid, [33°16'04" N, 7°35'07" W], 22 May 1913, *Pitard, C.J.* 2055 (K!); Casablanca, [33°35'34" N, 7°37'09" W], April 1871, *Hooker s.n.* (K!); **Fès-Meknès:** Fes Beni-Saddon, entre Fes et Birtam-Tam, région de Bas-Tèbouda, 600 m, [34°01'34" N, 4°46'25" W], 27 May 1971, *Bocquet, G.* 10150 (BM,SEV!); Ulad Settut, Muley Rechid, [33°41'04" N, 5°30'15" W], 22 May 1932, *Sennen, F.; Mauricio, Hno.* 8439 (MA,BM,MAF,RAB!); Fes Camping de Fés, 350 m, [34°01'59" N, 5°00'01" W], 3 June 1971, *Bocquet, G.* 10341 (SEV,BM!); Meknes halfway between Beni-Ammar and Fes, 400- 500 m, [34°05'40" N, 5°25'59" W], 11 September 1971, *Davis* 51181 (BM,E!); Tetouan (ou Tanger, suivant les epoque) Souk-el-Had-el-Gharbia, à l'E d'Assilah, 60 m, [33°32'35" N, 5°22'55" W], 4 March 1995, *Lambinon, J.; Van Den Sande, G.* 95Ma 31 (MA!); Fes Azrou, [34°31'18" N, 4°20'42" W], April 1934, *Garret, C.S.* 34 5 a (BM!);

Fes 49 miles from Fes on Fes - Ouezzana road, [34°01'59" N, 5°00'01" W], 5 April 1975, *Teddington School Expedition s.n.* (BM!); Fes [34°01'59" N, 5°00'01" W], 5 April 1975, *Teddington School Expedition s.n.* (BM!); Fes 116 miles from Fes on Fes - Ouezzana road, [34°01'59" N, 5°00'01" W], 5 April 1975, *Teddington School Expedition s.n.* (BM!); Fes Fes, [34°01'59" N, 5°00'01" W], 3 April 1975, *Teddington School Expedition s.n.* (BM!); Fes Azrou - Khenifra road, [34°31'18" N, 4°20'42" W], 1939, *Allinson, A.K. s.n.* (BM!); Fes c. 17 km E of Fes on main road to Taza, 420 m, [34°01'59" N, 5°00'01" W], 3 March 1994, *Jury, S.L.; Lafkih, M.A.; Upson, T.M.; Walters, G.S. 13751* (BM!); Meknes Zerhoun, on main Rabat to Mecknes road, 7 km NE of Khemisset, 300 m, [34°02'06" N, 5°32'21" W], 3 March 1994, *Jury, S.L.; Lafkih, M.A.; Upson, T.M.; Walters, G.S. 13728* (BM!); Fes Fes, 20 Km north of Fes, [34°01'59" N, 5°00'01" W], 5 April 1972, *Bramwell, D.; Richardson, I.B.K.; Murray, B.G. 628* (K,E!); Sidi Sliman, 100 km from Meknes, [33°37'06" N, 3°28'41" W], March 1936, *Trethewy, A.W. 313* (K!); Fes Fez, [34°01'59" N, 5°00'01" W], March 1930, *Trethewy, A.W. s.n.* (K!); Meknes Meknes, Oistjaida, 23 km from Meknes towards Fez, near old road, 513 m, [33°53'37" N, 5°32'50" W], 2 May 2006, *Rico, L. 1921* (K!); entre Sidi-Slimane y Khemisset, [33°37'06" N, 3°28'41" W], 16 May 2007, *Pyke, S.B. JMM 11781 2* (RAB,BC!); Fes pentes marmeuse ± rocailleuse, [...] experimentale de Fes, [34°01'59" N, 5°00'01" W], 8 December 1946, *Vindt, J. 42 bis* (RAB!); Fes champs pierreux ampied du Jbel Aicha Mongetaya (calcaires du sais) entre Fes et Petizean [?], [34°01'59" N, 5°00'01" W], 10 May 1948, *Vendr, J.; Sauvage, Ch. 3194* (MAF!); Meknes Zheroum-Saiss Nord, entre Fes y Birtam-Tam, [34°02'06" N, 5°32'21" W], 11 May 1989, *Cabezudo, B.; Devesa, J.; Dominguez, E.; Nieto; Ruíz de Clavijo, E.; Tormo, R. s.n.* (MGC!); Meknes Meknes, on the road to Fez, [33°57' N, 5°30' W], *NCRPIS (USDA) PI641684 in Silveira, P. 3111* (AVE!); Fes near Fes (Fez), [34°03'10" N, 4°58'58" W], *NCRPIS (USDA) PI603114 in Silveira, P. 3104* (AVE!); Meknes vicinities of Moulay Idriss Zerhoun, 429 m, [34°03'54" N, 5°30'19" W], 26 April 2010, *Silveira, P. 3061* (AVE!); Meknes 429 m, [34°03'54" N, 5°30'19" W], 26 April 2010, *Silveira, P. 3062* (AVE!); **Marrakech-Safi**: 6 km from Ighrem, road to Taliouine, 1800 m, [31°24'51" N, 7°28'26" W], 10 June 1974, *Reading Univ./BM.Expedition 537* (BM!); Marrakech, à IKoura, maissous, 600 m, [31°38'01" N, 8°00'33" W], 17 April 1923, *Jahandiez, E. 159* (BM!); Mogador, [31°30'38" N, 9°45'40" W], 1852, *Christ Basil, H. s.n.* (BM!); Marrakech plain, road from Casablanca before [...] turning for Demnate, 152- [31°38'01" N, 8°00'33" W], 20 March 1958, *Whiting, M.M.; Richmond, K. 12* (K!); Haha, Mogador to Shedma, [31°30'38" N, 9°45'40" W], April

1871, *Hooker s.n.* (K!); Jbilet, sud maison forestiere de Sidi Bou Othmane, [31°49'48" N, 8°00'00" W], 27 December 1979, *Maubert, T. 1056 a* (MARK!); entree de la vallée du Zat, [31°35'31" N, 7°45'14" W], 3 February 1980, *Maubert, T. 1060* (MARK!); Jbilet, sud de Sidi Bou Othmane, [31°49'48" N, 8°00'00" W], 17 December 1978, *Maubert, T. 1059* (MARK!); Jbilet, maison forestiere, [31°49'48" N, 8°00'00" W], 6 March 1982, *Titolet, D. 2371* (MARK!); Espace vert FSSM, [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A.; Babahmad, R.A. 7982 b* (MARK!); El Jadida, [33°15'14" N, 8°30'28" W], *NCRPIS (USDA) PI649651 in Silveira, P. 3112* (AVE!); Jbilet, near to the house of the gazele reserve, 624 m, [31°52'09" N, 7°57'08" W], 25 March 2013, *Silveira, P. ; Gonçalves, A.C.R.S.; Ouhammou, A. 3281* (AVE!); Taroudant 17 km W of Taroudant, 176 m, [30°28'32" N, 9°02'05" W], 26 March 2013, *Silveira, P.; Gonçalves, A.C.R.S.; Ouhammou, A. 3290* (AVE!); **Oriental:** Llano El Garet, [34°57'55" N, 3°08'29" W], 9 April 1929, *Font Quer, P. s.n.* (BC!); Ulad Settut, Muley Rechid, [34°54'36" N, 2°49'48" W], 22 May 1932, *Sennen, F.; Mauricio, Hno. 8439* (RAB!); entre Mont Aroui y Tiztoutine hacia Saka, 300 m, [34°37'10" N, 3°24'52" W], 30 April 1990, *Blanca, G.; Lazaro, R.; Navarro, P.; Rozas, L. s.n.* (GDA!); **Rabat-Salé-Kénitra:** Rabat Rabat, Salé, [34°00'50" N, 6°50'39" W], 23 March 1975, *Teddington School Expedition s.n.* (BM!); Rabat Temara, Lidi Yehie, 60 m, [33°55'43" N, 6°54'24" W], 11 January 1986, *Lewalle, J. 11249* (BM!); Rabat Rabat, route du Zoo, 60 m, [34°00'50" N, 6°50'39" W], 20 January 1994, *Lewalle, J. 13920* (BM,MA,MAF,L!); near Ain Defali, S of Ouezzane, 150 m, [34°35'22" N, 5°31'34" W], 11 April 1971, *Davis 51188* (BM,E!); Oued Kerifla (S of Rabat), [33°52'45" N, 6°44'55" W], 24 March 1976, *Lewalle, J. 8229* (BM,BR!); roadside wead, Petit Jean, [34°13'17" N, 5°42'28" W], 14 April 1936, *Simpson, N.D. 36008* (BM!); Rabat Temara, Ain El Aouda, 50 m, [33°55'43" N, 6°54'24" W], 27 February 1982, *Lewalle, J. 10093* (BM,BR!); Rabat Rabat - Jale - Oubina, [34°00'50" N, 6°50'39" W], *Grant, A. s.n.* (K!); Fes champs juneux au S du Jbel Ancha Mougetaya [...] entre Fés et Petitjean, [34°13'17" N, 5°42'28" W], 10 May 1947, *Sauvage, Ch. 6320* (RAB!); Rabat roches calcaires, près l'Oued Beth, aux environs du pont de la route de Rabat à Mecknes, [34°24'51" N, 6°25'58" W], 6 December 1924, *Emberger, L. s.n.* (RAB!); Rabat collines argilo-marneuses de la traversée de Beth sur la route Rabat - Meknés, [34°24'51" N, 6°25'58" W], 8 April 1951, *Sauvage, Ch. 8583* (SANT!); Khemisset about 5 km of Khemisset on the road from Rabat to Fes, [33°49'41" N, 6°04'29" W], 11 March 1996, *King, R.M.; Garvey, R.M. 10650* (US!); Rabat along the road from Rabat to Fes, near Meknes at

Volubilis Ruins, [34°00'50" N, 6°50'39" W], 11 March 1996, *King, R.M. ;Garvey, R.M. 10652* (US!); Oued Beht, a 18 Km de Khemisset, perto da ponte do rio Oued Beht, 132 m, [33°52'47" N, 5°55'49" W], 8 May 2014, *Silveira, P. ; Gonçalves, A.C.R.S. 3329* (AVE!); **Souss - Massa - Daraa:** Had Ora, region d' Essaouira, station experimental Jatro Med, 210 m, 24 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7989* (MARK!); 210 m, 24 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7990* (MARK!); 210 m, 24 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7992* (MARK!); 210 m, 24 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7993* (MARK!); 165 m, 10 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7977* (MARK!); 165 m, 10 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7976* (MARK!); 165 m, 10 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7975* (MARK!); 10 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7974* (MARK!); 10 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7973* (MARK!); Agadir road Agadir - Marrakech, before the Abdelmoumen water dam, 644 m, [30°35'21" N, 9°20'53" W], 30 April 2010, *Silveira, P. 3068* (AVE!); **Tanger-Tétouan-Al Hoceïma:** Larache, Ksar-el-Kebir, Orillas del río Loukkos, 30 m, [35°06'59" N, 6°09'25" W], 17 March 1995, *Mateos, M.A. ;et al. 4792* 95 (SEV!); Tanger alrededores de Tanger, en la carretera a Rabat, [35°46'50" N, 5°48'49" W], 8 April 1983, *Devesa, J.A. ;Galiano, E.F.; Talavera, S. s.n.* (SEV!); Tanger, [35°46'50" N, 5°48'49" W], April 1921, *Pau, C. s.n.* (BM!); [35°46'50" N, 5°48'49" W], 2 May 1921, *Pau, C. s.n.* (BM!); Chefchaouene pr. Xauen, 700 m, [35°10'08" N, 5°15'49" W], 11 March 1928, *Font Quer, P. 407* (MA,BM,GDA!); Douar Riffien (Andjera), [35°47'24" N, 5°31'32" W], 8 April 1926, *Vidal y Lopez, M. 285* (MA!); Beni Gorfet, [35°15'29" N, 5°50'00" W], 1925, *Vidal y Lopez, M. s.n.* (MA!); Tanger Tanger, [35°46'50" N, 5°48'49" W], 2 May 1921, *Pau, C. s.n.* (BC!); Chefchaouene Xauen, Jebela, Western Spanish Morocco, [35°10'08" N, 5°15'49" W], 28 March 1923, *Lynes, R.H. s.n.* (BM!); Tanger 9 km Tangiers to Tetuan, 100 m, [35°46'50" N, 5°48'49" W], 11 May 1972, *Alexander, J.C.M. ;Kupicha, F.K. 72* (BM,E!); Loukkos, 9 km from, Souk El Arbaa on minor road to, Moulay-Bousselham, 30 m, [35°12'08" N, 6°09'05" W], 24 February 1994, *Jury, S.L. ;Taleb, A.; Upson, T.M.; Walters, G.S. 13189* (BM!); Beni Gorfet, [35°15'29" N, 5°50'00" W], *Vidal y Lopez, M. s.n.* (K!); Tanger - Tétouan, [35°46'50" N, 5°48'49" W], April 1871, *Hooker s.n.* (K!); Tetouan ex rupibus calcareis prope Tetouan, [35°34'18" N, 5°21'49" W], 11 April 1871, *Ball, J. s.n.* (K!); Chefchaouene estrada P4103, entre Mokrisset e Zoumi, 550 m, [34°54'38" N, 5°21'08" W], 7 May 2014, *Silveira, P. ; Gonçalves, A.C.R.S. 3328* (AVE!); Tanger Tanger

Peninsula, road P32 between Tanger and Tetouan, around the junction with road 8302 to Melloussa, field margins, 70 m, [35°44'13" N, 5°37'53" W], 21 April 1993, *Vogt, R.*; *Oberprieler, Ch.* 9977 (RAB!); **Zaio**: estrada N2, à saída de Zaio para Nador, 213 m, [34°59'52" N, 2°49'47" W], 12 May 2014, *Silveira, P.*; *Gonçalves, A.C.R.S.* 3337 (AVE!); **cultivated**: Marrakech, 13 September 1961, *Ohle, H.* s.n. (HAL!); culta in seminis, *Vidal y Lopez, M.* s.n. (MA!); volubilis, herb 12 cm high, seed collected by A. Sapper n°12, cult. exp. ground, 13 August 1952, *unknown K* 3849 (K!); 13 August 1952, *unknown K* 3849 (K!);

C. suffruticosa Vahl (1791: 94)

subsp. ***bocoyana*** A.C. Gonç. & P. Silveira subsp. nov.

Additional specimens examined: MOROCCO. **Tanger-Tétouan-Al Hoceïma:** El-Jebha (El-Yebha), 90 m, [35°12'39" N, 4°39'46" W], 11 June 2012, *Silveira, P.*; *Gonçalves, A.C.R.S.* 3266 (AVE!); Al Hoceïma, El-Yebha, 400 m, [35°12'36" N, 4°39'50" W], 9 April 1994, *Montserrat, J.M.*; *Valdés, B.* s.n. (BC!); 400 m, [35°12'36" N, 4°39'50" W], 9 April 1994, *Montserrat, J.M.*; *Valdés, B.* 2948 94 (SEV!); Ras Sidi-el-Ahbed (Bokkoya), [35°11' N, 4°07' W], 16 April 1929, *Font Quer, P.* s.n. (BC!); [35°11' N, 4°07' W], 7 March 1929, *Font Quer, P.* s.n. (BC!);

subsp. ***dercana*** A.C. Gonç. & P. Silveira subsp. nov.

Additional specimens examined: MOROCCO. **Tanger-Tétouan-Al Hoceïma:** Tetouan Jbel Dersa, [35°35'38" N, 5°23'06" W], 10 May 1921, *Pau, C.* s.n. (MA,BC!); Tetouan Dersa, [35°35'38" N, 5°23'06" W], 13 April 1929, *Mas y Guindal, J.* s.n. (MA!); Tetouan Jbel Dersa, [35°35'38" N, 5°23'06" W], 15 May 1930, *Font Quer, P.* s.n. (BC!); Tetouan 468 m, [35°35'26" N, 5°22'45" W], 7 June 2012, *Silveira, P.*; *Gonçalves, A.C.R.S.* 3262 (AVE!); Tetouan, Jbel Dersa supra Semsá, [35°35'38" N, 5°23'06" W], 5 April 1911, *Pitard, C.J.* 1029 (G!); Tetouan, Jbel Dersa, [35°35'38" N, 5°23'06" W], 30 March 1911, *Pitard, C.J.* 1027 (G!); Tanger, Semsá, [35°35'37" N, 5°24'25" W], March 1930, *Mas y Guindal, J.* s.n. (MA!); Tanger, Tetouan, Semsá, [35°35'37" N, 5°24'25" W], 5 April 1911, *Pitard, C.J.* 1028 (G!);

subsp. *djurdjurensis* Ohle ex A.C. Gonç. & P. Silveira subsp. nov.

Additional specimens examined: ALGERIA. **Djurdjura:** N side of Jbel Djurdjura, below Tala Guilef, 18 km above Boghni [36° 28' N, 3° 58' W], 1150-1200 m, 5 June 1971, Davis 53195 (BM!); Djurdjura, between Tizi-N' Kouilal pass and Tikjda [36°27' N, 4°10' E], 1800m, 21 June 1975, Davis 59345 (BM!); Tizi n'Kouilal, 1 798 m [36°27'46" N, 4°10'06" E], 7 June 2013, *Silveira; Gonçalves & Amirouche 3321* (AVE!); Tizi-N'Kouilal, 1 798 m [36°27'46" N, 4°10'06" E], 8 August 2013, *Amirouche, R. & Amirouche, N. in Silveira, P. 3343* (only achenes AVE!).

subsp. *foliosa* Batt. in Battandier & Trabut (1902: 479) A.C. Gonç & P. Silveira, comb. nov.

Additional specimens examined: ALGERIA. Bou Zecza, April 1880, *Battandier, J.A. s.n.* (G!); Gorges de Palestro, 6 May 1884, *Battandier, J.A. 189* (BR!); Alger, Jardin ou il es naturalisé, 1885, *Battandier, J.A. 4 572* (G!); 1885, *Battandier, J.A. s.n.* (G!); Bou Zecza, 1887, *Battandier, J.A. 263* (G!); Gorges de Palestro, 20 May 1889, (*Chabern*) *s.n.* (G!); 20 May 1889, (*Chabern*) *s.n.* (G!); culta in horto meo seminibus a mi lectis in loco classico: faucibus Palestro, May 1895, *unknown s.n.* (G!); Gorge de Palestro, 100 m [36°36' N, 3°35' E], 7 June 2013, *Silveira, P.; Gonçalves, ACRS; Amirouche, R. 3 320* (AVE!);

subsp. *fulgida* (Rafiniesque) Guadagno (1922: 64)

Additional specimens examined: MOROCCO. **Oriental:** Beni Snassen Mountains, near Jbel Tizi, 1200 m, [34°48' N, 2°20' W], 20 February 1995, *Jury, S.L.; Lafkih, M.A.; Abu Sbah, H.; Ziri, R. 15795* (SEV!); Beni Snassen, gargantas Zegzel hacia Aroujene, 460 m, [34°48' N, 2°20' W], 13 April 1994, *Romo, A.M.; Bouhmadi, M.; Peris, J.B.; Stubing, G. 6637* (BM!); Beni Snassen, [34°48' N, 2°20' W], 28 May 1935, *Sennen, F.; Mauricio, Hno. s.n.* (MA!); Beni Snassen, pista a 6.5 km de Zegzel y hacia Ain- Almou, 1050 m, [34°48' N, 2°20' W], 3 May 2000, *Vargas, P.; Fiz, O.; Martínez, J.; Valcárcel, V. 201 PV* (MA!); Berkane, marges Beni Snassen, [34°48' N, 2°20' W], 2 April 1938, *Sennen, F.;*

Mauricio, Hno. s.n. (BM!); Beni Snassen, Zegzel, ad ruper supra Laonia Moulay Achmed, [34°48' N, 2°20' W], 19 April 1928, *Wilczek, E.; Briquet, J.; Dutoit, D. 1020* (K!); Beni Snassen, lieux herbeux de la vallée de l'Oued Zegzel, 300 m, [34°48' N, 2°20' W], 16 April 1928, *Emberger, L. s.n.* (RAB!); Beni Snassen, eboulis calcaires dans la vallée d l'Oued Zegzel, 300 m, [34°48' N, 2°20' W], 16 April 1928, *Emberger, L. s.n.* (RAB!); 10 km S of Berkane Grotte du Chameau, 360 m, [34°48' N, 2°20' W], 5 March 1994, *Upson, T.M.; Lafkih, M.A.; Hassan, M.; Walters, G.S. 13943* (RNG!); Beni Snassen, rocailles calc. herbeux de la vallée de l'Oued Zegzel, 300 m, [34°48' N, 2°20' W], 16 April 1928, *Emberger, L. s.n.* (RAB!); environ de Berkane, Massif des Beni Snassen. Montagnes de Iasil à l'ouest du refuge du Zegzel, 400- 900 m, [34°48' N, 2°20' W], 20 April 1928, *Wilczek, E.; Briquet, J.; Dutoit, D. 1103* (G!); environs de Berkane, Massif des Beni Snassen, Gorges inf. de Zegzel, 150- 300 m, [34°48' N, 2°20' W], 16 April 1928, *Wilczek, E. ;Briquet, J.; Dutoit, D. 867* (G!); Plaine subaride entre Oujda (22 km W) et Sidi Bouhria, versant S de Beni Snassen, 550 m, [34°48' N, 2°20' W], 9 April 2007, *Dobignard, A. AD 14237* (G!); Cabo de Agua, [35°02'59" N, 2°33'52" W], April 1912, *Caballero, A. s.n.* (MA!); Kebdana, [35°02'59" N, 2°33'52" W], 12 June 1934, *Sennen, F.; Mauricio, Hno. s.n.* (MAF!); Nador, Monts des Kebdana, road P 27 between Nador and Berkane, c. 6 km W Zaio road embankments, 240 m, [35°02'59" N, 2°33'52" W], 4 May 1995, *Vogt, R.; Oberprieler, Ch. 14141* (RAB!); Oujda, between Oujda and Ahfir, Col de Guerbouss, 530 m, [34°40'53" N, 1°54'31" W], 30 May 1993, *Lafkih, M.A.; Mateos, M.A.; Valdés, B. BV 461 93* (RNG,SEV!); Monts des Beni Snassen, Taforalt, N-facing slopes of Jbel Achaoun c. 1 km E Taforalf, stony slopes and limestone rocks, 850- 900 m, [34°48' N, 2°20' W], 4 May 1993, *Vogt, R.;Oberprieler, Ch. 10756* (RAB!); Berkane, Montes de Beni Snassen, estrada Zegzel entre Tazarhine e Takerboust, 54 m, [34°50'01" N, 2°22'17" W], 11 May 2014, *Silveira, P.; Gonçalves, A.C.R.S. 3335* (AVE!); Berkane, Montes de Beni Snassen, estrada Zegzel proximo do Oued Zegzel, 260 m, [34°52'40" N, 2°21'20" W], 11 May 2014, *Silveira, P.; Gonçalves, A.C.R.S. 3336* (AVE!); Beni Snassen, Zegzel, [34°48' N, 2°20' W], *Emberger, L. s.n.* (RAB!); Beni Snassen, vallée du Zegzel, [34°48' N, 2°20' W], 16 April 1928, *Emberger, L. s.n.* (RAB!); Beni Snassen, [...] au NW du Zegzel, 600 m, [34°48' N, 2°20' W], 20 April 1928, *Emberger, L. s.n.* (RAB!);

subsp. *hosmarensis* A.C. Gonç. & P. Silveira subsp. nov.

Additional specimens examined: MOROCCO. Beni Hosmar, Jbel Hosmar, 1005,

[35°29'12"N 5°22'12"W] *Calvo, J.* JC 3441 (MA!); Beni Hosmar, April 1871, [35°28' N, 5°20' W] *Hooker* s.n. (K!, G!); Tetouan, Beni Hosmar, *Pitard, C.J.* 1030 (G!); Beni Hosmar, May 1928, *Mas y Guindal, J.* s.n. (MA!); Beni Hosmar Gorges, 1 June 1930, [35°28' N, 5°20' W] *Mas y Guindal, J.* s.n. (MA!); Beni Hosmar, Jbel Gorges (Beni Hosmar), 30 May 1930, [35°28' N, 5°20' W] *Font Quer, P.* s.n. (BC); Beni Hosmar, 915 13 April 1939, [35°28' N, 5°20' W] *Davis, P.* 441 (K,E); Tetouan, Beni Hosmar, Jbel Ajnane, *Dittrich, M.* 1245 (G!); Beni Hosmar above Tetouan, 430 12 May 1972, [35°28' N, 5°20' W] *Alexander, J.C.M.* 124 (BM!, E!);

subsp. *lusitanica* (Boissier) Ohle (1974: 270)

Additional specimens examined: SPAIN. **Ceuta:** Benzu, base del Jbel Musa, [35°55' N, 5°24' W], 2 January 1990, *Cabezudo, B.; Nieto, J.M.; Perez-Latorre, AV* s.n. (MGC!); Benzu, 5–20 m, [35°54'06" N, 5°20'44" W], 14 June 2012, *Silveira, P.; Gonçalves, ACRS* 3 269 (AVE!);

subsp. *marsea* A.C. Gonç. & P. Silveira subsp. nov.

Additional specimens examined: MOROCCO. **Tanger-Tétouan-Al Hoceïma:** Tanger Oued Marsa, 3- 5 m, [35°54' N, 5°27' W], 13 June 2012, *Silveira, P. ; Gonçalves, A.C.R.S.* 3268 (AVE!); Tanger Jbel Mousa, 400- 500 m, [35°53'53" N, 5°24'35" W], 9 April 1971, *Davis 51121 B* (BM!); Tanger, Jbel Musa, [35°53'53" N, 5°24'35" W], 25 May 1930, *Font Quer, P.* s.n. (BC!); Tanger Jbel Moussa (Mont aux Singes), [35°53'53" N, 5°24'35" W], June 1977, *Benabib s.n.* (RAB!);

subsp. *monardii* (Boissier & Reuter 1859: 108) Ohle (1975b, 532)

Additional specimens examined: ALGERIA. **Alger:** Paroi N du Gran Rocher, Forêt de Bainem, près d'Alger, 19 April 1960, *Dubuis, A.; Faurel, L.* 4496 (G!); Alger, 21 April 1861, *Lefebvre, J.* 186 (BM,BM813733!); environ d' Alger, 1851, *Jamin, P.* s.n. (BM!); Alger, 1844, *unknown* s.n. (K!); *Fauché, M.* s.n. (G!); sur la montagne d'Aïn-Telazi, près Blidah, March 1849, *Reuter, s.n.* (G!); Le Gouraya de Bougie, 600 m, June

1896, *Reverchon, E. 62* (G!); La Calle (El Kala), October 1924, *Cuenod, A. s.n.* (G!); Guyotville, près d'Alger, May 1919, *Alleizette, Ch. d' s.n.* (MA!); Dep. d'Alger, dunes littorales près de Guyotville, 11 May 1947, *Dubuis, A. ;Faurel, L. 230* (RAB,K,G!); Guyotville, 5 December 1910, *Brichi, M. s.n.* (G!); In arenosis litoralis prope Guyotville, 2 June 1935, *Maire, R. s.n.* (G!); sables maritimes, La Madragne, 20 Km W Alger, 27 March 1960, *Charpin, A. s.n.* (G!); Ligne de routes entre le Lalla Khedidja et le Col de Lirourda, 26 June 1875, *Duhamel, M. s.n.* (G!); a Sidi Ferruch, aux environs d' Alger, 24 March 1867, *Durando 582* (BM!); Sidi Ferruch, province d'Alger, May 1884, *Allard s.n.* (MA!); Sidi Ferruch, near Algier, April 1856, *unknown s.n.* (K!); Sidi Ferruch, July 1830, *Monard, P.; Monard, C. 10* (G!); February 1882, *Meyer, A.; Allard, C. 3362* (G!); March 1886, *Battandier, J.A.; Trabut, L. 81* (G!); In arenosis prope Sidi Ferruch, 10 March 1936, *Maire, R. s.n.* (G!); Sidi Ferruch, July 1830, *unclear 42* (G!); Zeralda, 28 May 1939, *Maire, R. s.n.* (K!); 28 May 1939, *Maire, R. s.n.* (K!);

subsp. *osteni* (ex Sennen) A.C. Gonç & P. Silveira subsp. nov.

Additional specimens examined: MOROCCO. **Melilla:** Gurugú, 950 m, [35°19' N, 2°57' W], 19 May 1932, *Sennen, F. ; Mauricio, Hno. 8438* (BM,BC,G!); Melilla, Barranco del Nano, 1 June 1915, *Caballero, A. s.n.* (MA!); Melilla, Pico de la Peineta, 13 April 1943, *Arnal, A. s.n.* (MA!); **Tanger-Tétouan-Al Hoceïma:** Nador, Al Hoceïma, cabo ao SE, junto a urbanización, [35°14'36" N, 3°55'51" W], 11 June 1993, *Montserrat, J.M. ;Abdelkader, T.; Molero, J.; Pallàs, J.; Vicens, J.; Veny, M. JMM 3585 5* (BC!);

subsp. *riffiniensis* A.C. Gonç. & P. Silveira subsp. nov.

Additional specimens examined: MOROCCO. **Tanger-Tétouan-Al Hoceïma:** Chefchaouene c. 1 km SW of Oued Laou (town), on main road, 30 m, [35°26'14" N, 5°04'54" W], 26 February 1994, *Jury, S.L.; Taleb, A.; Upson, T.M.; Walters, G.S. 13384* (BM!); Chefchaouene Chefchauen, Targa, Oued Tarerha, montes Beni-Galoune, [35°23'42" N, 5°00'37" W], 4 May 1996, *Mateos, M.A.; Pina, F.J.; Silvestre, S. MM 422 96* (BC!); Chefchaouene track N from Chefchauen around Jbel El Kelaa at village Ighrmane, 720 m, [35°14'09" N, 5°13'17" W], 8 June 2005, *Lafkih, M.A.; Carine, M.; Jury, S.L.; Rumsey, F.J. 244* (BM!); Chefchaouene Tetouan, c. 38 km from Chefchaouen,

14 km above Bab Taza on track to Jbel Talamssmtane, 1765 m, [35°01'54" N, 5°16'00" W], 26 June 1992, *Optima Inter V 2173* (RNG,PAL!); Chefchaouene, carretera Oued Laou, 220 m, [35°10'08" N, 5°15'49" W], 15 May 1990, *Cabezudo, B.; Nieto, J.M. s.n.* (MGC!); Tetouan Jbel Kelti, Arifane, 943 m, [35°17'04" N, 5°18'00" W], 15 May 2014, *Silveira, P.; Gonçalves, A.C.R.S. 3341* (AVE!);

subsp. *suffruticosa* Vahl (1791: 94)

Additional specimens examined: TUNISIA. **Tunis:** Porto Farina, *Vahl s.n.* (K!); Korbous, W side of Cap Bon Peninsula, 10–50 m, [37°05'18" N, 11°02'09" E], 27 April 1975, *Davis; Lamond D 56 824* (BM!); Tunis, Hammam-Lif, base du Cap Bon, côte Nord, 15–20 m, [36°43'59" N, 10°20'10" E], 12 April 1999, *Lambinon, J.; Margot, J. 99Tu 176* (MA,LG!); Ghar el Melh [Porto Farina], 10 m [37°10' N, 10°11' E], 11 April 2009, *Silveira, P. 3 038* (AVE!);

subsp. *tazzea* A.C. Gonç. & P. Silveira subsp. nov.

Additional specimens examined: MOROCCO. **Fès-Meknès:** Taza, Ras-El-Ma, Sidi Msbar, [34°32'35" N, 4°25'55" W], 13 June 1993, *Montserrat, J.M.; Abdelkader, T.; Molero, J.; Pallàs, J.; Vicens, J.; Veny, M. JMM 3482 4* (BC!).

subsp. *trialata* P. Silveira & A.C. Gonç. (in press)

Additional specimens examined: MOROCCO. **Rif:** Tanger Peninsula, Cap Ras Ciress, surroundings of the lighthouse 9.7 km NE of Ksar-es-Seghir, coastal rocks, moist place in Pinus woodland, 5-60 m, 20 April 1993, *Vogt, R.; Oberprieler, Ch. 9942* (RAB!);

subsp. *tunetana* (Cuénod) A.C.Gonç. & P.Silveira comb. nov.

Additional specimens examined: TUNISIA. **Nabeul:** Oued el Kébir, May 1910, *Pitard, C.J. 706* (MA!); Nabel, October 1907, *Gandonger, M. 147* (COI,K,W,G!); entre Bir Bou

Regba e Hammamet, [36°26' N, 10°35' E], 11 April 2009, *Silveira, P. 3039* d (AVE!); Berges de l'Oued entre Bir bou Rekha et Hamamet, May 1906, *Cuenod, A. s.n.* (G!); Bir bou Rekba, April 1913, *Cuenod, A. s.n.* (G!); Hammamet (Oued El Faouara), March 1936, *Cuenod, A. s.n.* (G!); Bir bou Rekba, May 1909, *Cuenod, A. s.n.* (G!); Nabeul, Oued el Kébir, January 1918, *Pitard, C.J. s.n.* (G!); May 1910, *Pitard, C.J. 706* (MA,G!); sine loco in herb. *Cuenod, Cuenod, A. s.n.* (G!); Bir bou Rekba, 1910, *Cuenod, A. s.n.* (G!);

C. tripterocarpa Ruprecht (1856: 231)

Additional specimens examined: MOROCCO. **Béni Mellal-Khénifra:** Beni-Mellal, [32°20'14" N, 6°20'59" W], 1939, *Allinson, A.K. s.n.* (BM!); Rasba Tardla - Rabat, [32°51'56" N, 6°34'51" W], 5 April 1936, *Sarnett, C.S. C 95 8* (BM!); **Casablanca-Settat:** Machraa Ben Abbou (Prov. Settat), 400 m, [33°05' N, 7°25' W], 28 March 1986, *Lewalle, J. 11330* (BM,MA!); Shedma, May 1871, *Hooker s.n.* (K!); Marrakech, hacia Casablanca, 450 m, [33°35'34" N, 7°37'09" W], 19 April 1990, *Solanas, J.L. ;Crespo, M.B. s.n.* (ABH!); **Drâa-Tafilalet:** Er-Rachida, vallée du Ziz, Ksar Jdid (7 km au N d'Aoufous, route 567 Er-Rachida - Erfoud à environs 21 km du carrefour de la P32), 950 m, [31°57' N, 4°24' W], 15 March 1995, *Lambinon, J. ;Vanden Sande, G. 95Ma 250* (MA!); Tazzougert, 1100 m, [32°00'36" N, 3°45'36" W], April 1923, *Humbert, H. s.n.* (BC!); Boudenib (Prov. Er-Rachidia), 1000 m, [31°57' N, 4°24' W], 3 April 1992, *Lewalle, J. 13654* (BR!); Er-Rachida, road N from Erfoud, Ait Amira, 1040 m, [31°57' N, 4°24' W], 19 February 2002, *Jury, S.L. ;Rejdali, M.; Upson, T.M. 19154* (ABH!); Taroudant Ait-Yazza, road side of N10, 260 m, [30°29'28" N, 8°47'30" W], 26 March 2013, *Silveira, P. ; Gonçalves, A.C.R.S.; Ouhammou, A. 3291* (AVE!); montagnes de Siggrat eh Ghiliz jusque vers Ighirmillul à l'Est du district de Tazeroualt, [31°39'43" N, 4°33'50" W], 1876, *Mardochee, R. s.n.* (G!); **Fès-Meknès:** Ifrane, carretera S-7076, [33°20' N, 5°15' W], 5 November 2001, *Arrington, J. ;Cano, M.A.; Muñoz, J.; Pando, P. s.n.* (MA!); Boulemane, montée aux Jbel Bou Rharraf près d'Anoual, 1415 m, [33°10' N, 4°00' W], 24 May 2008, *Jeanmonod, D. ;Chatelain, C. J 7541* (G!); **Guelmim-Oued Noun:** Sidi Ifni SW, c. 5 Km N of Ifni, 50 m, [29°22'47" N, 10°10'23" W], 20 March 1972, *Davis 53568* (BM,E!); on the road to Plage Blanche, 170 m, [28°52'12" N, 10°46'48" W], 29 April 2010, *Silveira, P. 3066* (AVE!); 170 m, [28°52'12" N, 10°46'48" W], 29 April 2010, *Silveira, P. 3067* (AVE!); **Marrakech-Safi:** 32 km from Marrakech to Chemaia, 450 m, [32°04'52" N, 8°37'28" W], 7 April 1972, *Davis, P.H.*

54217 (BM,E!); Taroudant road to Igherm from Taroudant at Douar Askstou de Sidi Ahmed Abdullah, 620 m, [31°44'18" N, 8°48'04" W], 14 February 2007, *Jury, S.L. ;Upson, T.M. 20691* (BM,RNG!); 7 km N of Igherm, 1500 m, [31°24'51" N, 7°28'26" W], 5 April 1974, *Miller ;Russel; Sutton 735* (BM!); entre Mogador et Maroc, [31°30'38" N, 9°45'40" W], 22 May 1884, *Ibrahim, H. s.n.* (K!); Espace vert FSSM, [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahnad, R.A. s.n.* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7987* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7986* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7985* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7978* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7979* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7980* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7981* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7983* (MARK!); [31°38'01" N, 8°00'33" W], 21 January 2013, *Ouhammou, A. ;Babahmad, R.A. 7984* (MARK!); Agadir na N1, depois de Arround, entre Agadir e Cap Rhir, 11 m, [30°36'53" N, 9°48'04" W], 10 April 2011, *Silveira, P. 3133* (AVE!); Jbilet, near to the house of the gazele reserve, 624 m, [31°52'09" N, 7°57'08" W], 25 March 2013, *Silveira, P. ; Gonçalves, A.C.R.S.; Ouhammou, A. 3282* (AVE!); Menara, near to the Airport, [31°35'00" N, 8°00'44" W], 25 March 2013, *Silveira, P. ; Gonçalves, A.C.R.S.; Ouhammou, A. 3283* (AVE!); between Menara and the Barrage Lalla Takerhust, [31°27'50" N, 8°04'28" W], 25 March 2013, *Silveira, P. ; Gonçalves, A.C.R.S.; Ouhammou, A. 3285* (AVE!); Taroudant 17 km W of Taroudant, 176 m, [30°28'32" N, 9°02'05" W], 26 March 2013, *Silveira, P. ; Gonçalves, A.C.R.S.; Ouhammou, A. 3289* (AVE!); Ighirmillul et Jbel Tafraout et Kerkar montagnes à l'Est du district de Tazeroualt, [31°22'04" N, 7°19'24" W], 1876, *Mardochee, R. s.n.* (G!); entre Mogador et Maroc, [31°30'38" N, 9°45'40" W], 22 May 1884, *Ibrahim, H. s.n.* (G!); **Oriental:** Southern Beni Snassen Mountains, c. 28 km NW of Oujda, 870 m, [34°48' N, 2°20' W], 5 March 1994, *Upson, T.M. ;Lafkih, M.A.; Hassan, M.; Walters, G.S. 13910* (BM!); SE of Guercif, 10.5 km S of junction of Guercif - Oujda main road, [34°13'48" N, 3°24'00" W], 26 April 1995, *Jury, S.L. ;Lafkih, M.A.; Haila, M.; Wilson, R.G. 16920* (MA,K!); SE of Guercif, 1.8 km S of junction of Guercif - Oujda main road, 450 m, [34°13'48" N, 3°24'00" W], 26 April 1995, *Jury, S.L. ;Lafkih, M.A.; Haila, M.; Wilson, R.G. 16909* (K!);

entre Bel Ghiada et Anoual, à env. 10 km à l'E d'Anoual, 1174 m, [32°40'51" N, 3°05'38" W], 23 May 2008, *Jeanmonod, D. ; Chatelain, C. J 7508* (G!); Figuig, 1258 m, [32°50' N, 2°15' W], 14 May 2012, *Chatelain, C. CC 1824* (G!); **Rabat-Salé-Kénitra**: Rabat Rabat, Casablanca, Marrakech, [34°00'50" N, 6°50'39" W], 11 April 1931, *Godman, E.M 135* (BM!); **Souss-Massa**: Agadir near Abdelmoumen water dam, NE of Agadir, [30°39'48" N, 9°13'56" W], 28 April 2010, *Silveira, P. 3065* (AVE!); Agadir entre Marrakesh e Agadir, na N8 j depois de Chichaoua, 552 m, [31°22' N, 8°49' W], 9 April 2011, *Silveira, P. 3128* (AVE!); Agadir Agadir, boisement d'Anza, 50 m, [30°25'18" N, 9°34'48" W], 28 March 1981, *Lewalle, J. 9741* (BM!); Agadir Oued Massa, between Agadir and Tiznit, 10 m, [30°25'18" N, 9°34'48" W], 19 March 1972, *Davis 53505* (BM,RNG,E!); Tiznit Tiznit - Tafraoute road, 10 km Tiznit, 300- [29°41'51" N, 9°43'54" W], 7 June 1974, *Reading Univ./BM.Expedition 379* (BM!); Sous, Berges de l'Oued Massa, ou pont de la route de Tignit, [30°04'32" N, 9°40'09" W], 1 April 1931, *Jahandiez, E. 105* (BM,G!); Tiznit SW, 6 Km N of Tiznit. Nr. El-Mader-al-Kebir., 200 m, [29°41'51" N, 9°43'54" W], 3 April 1974, *Miller; Russel; Sutton 560* (BM!); Tiznit NE of Tiznit. Youssef Ben Tachfine Hydro Scheme, 100 m, [29°41'51" N, 9°43'54" W], 3 June 1974, *Reading Univ./BM.Expedition 333* (BM!); Oasis d'Akka, [29°23'21" N, 8°15'18" W], April 1875, *Mardochee, R. s.n.* (K!); [29°23'21" N, 8°15'18" W], 1873, *Mardochee, R. s.n.* (K!); Tiznit Tiznit, 100 m, [29°41'51" N, 9°43'54" W], 28 February 1974, *Lewalle, J. 7492* (BR!); Tiznit a ñ 6 km de Tiznit, vindo de Agadir, 204 m, [29°44'31" N, 9°41'20" W], 11 April 2011, *Silveira, P. 3136* (AVE!); Agadir pe. Ait Baha, 599 m, [30°04'58" N, 9°08'25" W], 13 April 2011, *Silveira, P. 3140* (AVE!); Taroudant between Tiout and Igherm, at 3 km from Irherm, 1656 m, [30°06'41" N, 8°27'50" W], 26 March 2013, *Silveira, P. ; Gonçalves, A.C.R.S.; Ouhammou, A. 3296* (AVE!); Agadir Agadir, 5 km E Bou Izakarn an der Strabe nach Akka (P30), 600 m, [30°25'18" N, 9°34'48" W], 13 April 1986, *Podlech, D. 40700* (G!); Agadir Agadir, Oued Noum, 25 km W Goulimine, 160 m, [30°25'18" N, 9°34'48" W], 13 April 1986, *Podlech, D. 40636* (G!); Agadir Agadir, 60 km SW Goulimine an der Strabe nach Tantan (P41), 150 m, [30°25'18" N, 9°34'48" W], 12 April 1986, *Podlech, D. 40592* (G!); Agadir Agadir, Oued Boukila, 10 km SW Goulimine, nahe der Strabe nach Tantan (P41), [30°25'18" N, 9°34'48" W], 9 April 1986, *Podlech, D. 40339* (G!);