

New occurrences of the Mediterranean black widow *Latrodectus tredecimguttatus* (Rossi, 1790) in Peninsular Spain with first records for five provinces (Araneae, Theridiidae)

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SOCIETAT D'HISTÒRIA
NATURAL DE LES BALEARS

Ceccolini, F. 2024. New occurrences of the Mediterranean black widow *Latrodectus tredecimguttatus* (Rossi, 1790) in Peninsular Spain with first records for five provinces (Araneae, Theridiidae). *Boll. Soc. Hist. Nat. Balears*, 67: 157-164. ISSN 0212-260X. e-ISSN 2444-8192. Palma.

New occurrence records of the Mediterranean black widow *Latrodectus tredecimguttatus* (Rossi, 1790) are quoted for Peninsular Spain. The first records for the provinces of Girona, Cáceres, Castellón, Granada, and Huelva are given.

Keywords: faunistics; Spain; Girona; Cáceres; Castellón; Granada; Huelva.

NOVES DADES DE PRESENCIA DE LA VÍDUA NEGRA MEDITERRÀNIA *LATRODECTUS TREDECIMGUTTATUS* (ROSSI, 1790) A L'ESPANYA PENINSULAR AMB PRIMERES CITES A CINC PROVÍNCIES (ARANEAE, THERIDIIDAE). Es donen nous registres d'ocurrència de la vídua negra mediterrània *Latrodectus tredecimguttatus* (Rossi, 1790) per a l'Espanya peninsular. Es donen els primers registres de les províncies de Girona, Càceres, Castelló, Granada i Huelva.

Paraules clau: faunística; Espanya; Girona; Càceres; Castelló de la Plana; Granada; Huelva.

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Recepció del manuscrit: 1-12-2024; revisió acceptada: 9-12-2024; publicació online: 9-12-2024.

Introduction

The knowledge of the spider fauna of Iberian Peninsula has recently improved when the first Iberian checklist was published by Cardoso and Morano (2010), and then with an online catalogue continuously updated by de Biurrun *et al.* (2022). However, the knowledge about the distribution of several spider still needs to

be implemented, even for some common and impressive species.

One of these is the Mediterranean black widow, *Latrodectus tredecimguttatus* (Rossi, 1790). It is one of the two species of the genus *Latrodectus* in Iberian Peninsula (Melic, 2000) and it is one of the few Iberian spiders that can be dangerous to humans, being able to cause latrodectism with its poison (see Fusto *et*

al., 2020) which contains the neurotoxin α -latrotoxin which has neurological effects in humans (Bildik *et al.*, 2021). This theridiid has a wide range from the Iberian Peninsula to southeastern Europe and Central Asia (WCS, 2024) and although its distribution in Spain is quite well known—as summerized in de Biurrun *et al.* (2022)—there are still some knowledge gaps due to a lack of records. Currently in Spain, in addition to Balears—in Menorca (Wunderlich, 2017; Febrer and Barrientos, 2022)—and Canary Islands (Lucas, 1838; Simon, 1833, 1889; Wunderlich, 1987, 1991; Schmidt, 1990; Lotz, 1994; Melic, 2000; Wunderlich, 2017), *L. tredecimguttatus* is known in Alicante (Barrientos *et al.*, 2023), Almería (Vanuytven *et al.*, 1994; Melic, 2000), Badajoz (Mora-Rubio and Pérez-Bote, 2018), Barcelona (Dufour, 1820; Graells, 1842; Pérez Acosta, 1923), Cuenca (Simon, 1900), Cádiz (Melic, 2000; Sánchez, 2003; Rojas and Rojas, 2016), Guadalajara (Pinilla-Rosa, 2021), Huesca (Navás, 1904; Melic, 2000), La Rioja (Melic *et al.*, 2006), Madrid (Ferrández *et al.*, 2006), Murcia (Melic, 2000), Navarra (Melic *et al.*, 2006), Pontevedra (Franganillo, 1910, 1925; Martínez Sabarís, 2017), Tarragona (Dufour, 1820, Graells, 1834, 1842), Teruel (Melic, 2000), Toledo (Melic, 2000), Valencia (Calatayud-Mascarell *et al.*, 2024), and Zaragoza (Melic, 2000).

The present contribution gives several new records of this spider in Peninsular Spain, adding some new provinces in which *L. tredecimguttatus* is known.

Material and method

All material examined consists of photographed specimens from the

websites iNaturalist (IN) or observation.org (OB). All listed records were confirmed by the author. *Latrodectus tredecimguttatus* is recognizable through photo thanks peculiar features (Nentwig *et al.*, 2024). Its coloration pattern is black with opisthosoma dorsally with 3 longitudinal series of red in female or more whitish in male blotches—sometimes these blotches are absent and the opisthosoma is entirely black—even if in subadults specimens the outlines of the red spots are white. Only photos in which the specimens have these features were well visible are selected (many records of theridiids entirely black were not be used due to the risk of misidentification through photo with other similar species, like in case of eventual specimens of *Steatoda paykulliana* (Walckenaer, 1806) without the characteristic band around the front).

For each site, the following information is given: locality, coordinates, date of collecting, number of specimens, photographer, source. Geographical coordinates are in decimal degrees (datum WGS84). The uncertainty (in meters) of data is indicated according to the point-radius method (Wieczorek *et al.*, 2004).

Material examined

Aragon: Huesca, Berbegal, 41.9778°N 0.0296°E (un. not recorded), 21.VI.2018, 1 specimen, photo by Alfonso Pascual García (OB) (<https://observation.org/observation/302973936/>); *idem*, 41.9646°N -0.0293°E (un. not recorded), 2.VII.2019, 1 specimen, photo by Alfonso Pascual García (OB) (<https://observation.org/observation/302990678/>); Alcolea de Cinca, 41.7214°N 0.1150°E (un. not recorded), 9.VI.2014, 1 specimen, photo by Ramon M. Batlle Artigues (OB) (<https://observation.org/observation/30294582>

7/); Teruel, Calamocha, 40.9185° -1.3563°E (un. not recorded), 29.VI.2019, 1 specimen, photo by José-Antonio Sánchez Sancho (OB) (<https://observation.org/observation/302984855/>).



Fig. 1. Female of *Latrodectus tredecimguttatus* from the surroundings of Rabós, Girona (photo by Sergi Castro Rodríguez).

Fig. 1. Femella de *Latrodectus tredecimguttatus* dels voltants de Rabós, Girona (foto de Sergi Castro Rodríguez).

Catalunya: Girona, near Rabós, 42.38939°N 3.03008°E (un. = 2330 m), 30.VI.2022, 2 specimens (one in Fig. 1), photos by Sergi Castro Rodríguez (IN) (<https://www.inaturalist.org/observations/124306995>); Barcelona: Sant Vicenç de Castellet, 41.66815°N 1.86462°E (un. = 1140 m), 1.V.2023, 1 specimen, photo by Claudia Fernández (IN) (<https://www.inaturalist.org/observations/158770897>); *idem*, 41.66604°N 1.85338°E (un. = 815 m), 30.IV.2023, 1 specimen, photo by Claudia Fernández (IN) (<https://www.inaturalist.org/observations/158160465>); *idem*, 41.66546°N 1.85449°E (un. = 815 m), 1 specimen, photo by Claudia Fernández (IN) (<https://www.inaturalist.org/observations/161583089>); *idem*, 41.65713°N 1.84171°E (un. = 1060 m), 15.VI.2024, 1 specimen, photo by Claudia Fernández (IN)

(<https://www.inaturalist.org/observations/222892072>); *idem*, 41.65193 1.84715°E (un. = 362 m), 5.V.2024, 1 specimen, photo by Claudia Fernández (IN) (<https://www.inaturalist.org/observations/213663341>); *idem*, 41.65507°N 1.84831°E (un. = 529 m), 1 specimen, photo by Claudia Fernández (IN) (<https://www.inaturalist.org/observations/218108591>); Vacarisses, 41.6064°N 1.9195°E (un. not recorded), 8.IX.2018, 2 specimens (male and female in courtship behaviour), photo by Óscar Méndez Almansa (OB) (<https://observation.org/observation/302980735/>); *idem*, 22.VII.2018, 2 specimens (male and female mating), photo by Óscar Méndez Almansa (OB) (<https://observation.org/observation/302980734/>); *idem*, 23.VI.2018, 1 specimen, photo by Óscar Méndez Almansa (OB) (<https://observation.org/observation/302980727/>); *idem*, 41.6052°N 1.8686°E (un. not recorded), 23.VI.2018, 1 specimen, photo by Marcel Nadal Calderón (OB) (<https://observation.org/observation/302978716/>); *idem*, 41.59632°N 1.92224°E (un. = 2030 m), 13.III.2021, 1 specimen, photo by Óscar Méndez Almansa (IN) (<https://www.inaturalist.org/observations/80762407>); Monistrol de Montserrat, 41.60572°N 1.86310°E (un. = 61 m), 23.VI.2018, 1 specimen, photo by Óscar Méndez Almansa (IN) (<https://www.inaturalist.org/observations/80716508>); El Bruc, 41.5799°N 1.7802°E (un. not recorded), 18.V.2011, 1 specimen, photo by Óscar Méndez Almansa (OB) (<https://observation.org/observation/302883828/>).

Navarra: Bardenas Reales, 42.06960°N - 1.35149° (un. = 13 m), 3.VII.2021, 1 specimen, photo by “avaldeon” (IN) (<https://www.inaturalist.org/observations/85731869>).

Aragon: Zaragoza, San Mateo de Gállego, 41.7900°N -0.7416°E (un. not recorded), 25.V.2014, 1 specimen, photo by Patxi Establés Recasens (OB) (<https://observation.org/observation/302945316/>); Zaragoza, 41.7672°N -0.7278°E (un. not

recorded), 12.VI.2010, 1 specimen, photo by Henri Bourrut Lacouture Bastier (OB) (<https://observation.org/observation/302855774/>); Perdiguera, 41.7537°N -0.6317°E (un. not recorded), 16.VI.2009, 1 specimen, photo by Constantino Escuer Murillo (OB) (<https://observation.org/observation/302848485/>); Alfajarín, 41.6750°N -0.5988°E (un. not recorded), 3.VI.2009, 1 specimen, photo by Manuel Lorenzo Castillo (OB) (<https://observation.org/observation/302842741/>); Farlete, 41.70635°N -0.58332°E (un. = 31 m), 26.V.2023, 1 specimen, photo by Enrique Pelayo (IN) (<https://www.inaturalist.org/observations/163829681>); *idem*, 41.6657°N -0.5815°E (un. not recorded), 5.V.2012, 1 specimen, photo by Benito Campo (OB) (<https://observation.org/observation/302908401/>); Monegrillo, 41.6411°N -0.4160°E (un. not recorded), 2.VII.2010, 1 specimen, photo by Óscar Méndez Almansa (OB) (<https://observation.org/observation/302856442/>).

Comunidad Autónoma de Madrid:

Madrid, Santa María de la Alameda, 40.6160°N -4.1645°E (un. not recorded), 3.VIII.2018, 1 specimen, photo by David Cabanillas Roldán (OB) (<https://observation.org/observation/302991144/>).

Castilla-La Mancha: Cuenca, San Clemente, 39.4010°N -2.5038°E (un. = 9 m), 29.IV.2023, 1 specimen, photo by Juan Manuel Casanova Valladolid (OB) (<https://observation.org/observation/269961843/>); El Provencio, 39.3889°N -2.5460°E (un. not recorded), 9.VII.2012, 1 specimen, photo by Juan Manuel Casanova Valladolid (OB) (<https://observation.org/observation/302914005/>).

Extremadura: Cáceres, Trujillo, 39.5041°N -5.8715°E (un. not recorded), 15.VI.2016, 1 specimen, photo by Carlos Bravo (OB) (<https://observation.org/observation/302961568/>).

Valencia: Castellón, Villares, 40.6757°N -0.2004°E (un. not recorded), 22.VI.2014, 1 specimen, photo by Martí P. Gisbert (OB)

(<https://observation.org/observation/302946818/>); Forcall, 40.6597°N -0.2290°E (un. not recorded), 22.VI.2014, 1 specimen, photo by Marcel Nadal Calderón (OB) (<https://observation.org/observation/302946912/>); *idem*, 40.6580°N -0.2285°E (un. not recorded), 22.VI.2014, 1 specimen, photo by José Antonio Sánchez Sancho (OB) (<https://observation.org/observation/302946276/>); *idem*, 40.6446°N -0.2004°E (un. not recorded), 22.VI.2014, 1 specimen, photo by Sonia Chaves Pérez (OB) (<https://observation.org/observation/302946297/>); *idem*, 40.6306°N -0.1868°E (un. not recorded), 22.VI.2014, 1 specimen, photo by Josep Torras Crespià (OB) (<https://observation.org/observation/302947172/>); Cincorres, 40.5456°N -0.2077°E (un. not recorded), 16.VII.2022, 1 specimen, photo by Fani Martínez Ripoll (OB) (<https://observation.org/observation/303013073/>); Portell de Morella, 40.53339°N -0.26259°E (un. = 590 m), 25.V.2006, 1 specimen, photo by “petyr_bcn” (IN) (<https://www.inaturalist.org/observations/40143818>); *idem*, 40.5216°N -0.2815°E (un. not recorded), 9.VIII.2013, photo by Jacint Cerdà (OB) (<https://observation.org/observation/302935087/>); *idem*, 40.5126°N -0.2587°E (un. not recorded), 25.VI.2014, 1 specimen, photo by Xavier Gil Ayarzagüena (OB) (<https://observation.org/observation/302956041/>); *idem*, 40.5056°N -0.2656°E (un. not recorded), 6.VII.2014, 1 specimen, photo by Martí P. Gisbert (OB) (<https://observation.org/observation/302946844/>); Villafranca del Cid, 40.4579°N -0.2255°E (un. not recorded), 12.VIII.2013, 2 specimens (male and female in courtship behaviour), photo by <https://observation.org/observation/302935239/>); Santa Magdalena de Pulpis, 40.3439°N 0.3215°E (un. not recorded), 26.VI.2021, 1 specimen, photo by Francisco Arnau Esbri (OB) (<https://observation.org/observation/303004155/>); Valencia, Ayora, 39.0597°N -1.0572°E (un. not recorded), 8.VII.2020, 1 specimen, photo by Fernando Camuñas Mohinelo (OB)

(<https://observation.org/observation/302994843/>); Alicante, Villena, 38.6301°N -0.8703°E (un. not recorded), 12.X.2012, 1 specimen, photo by David Molina Molina (OB) (<https://observation.org/observation/302920072/>).



Fig. 2. Female of *Latrodectus tredecimguttatus* from Carthagène, Murcia (photo by Laurent Bouvin).

Fig. 2. Femella de *Latrodectus tredecimguttatus* de Carthagène, Múrcia (foto de Laurent Bouvin).

Murcia: Murcia, Murcia, Carrasco y el Valle, 37.9299°N -1.1034°E (un. not recorded), 7.VII.2016, 1 specimen, photo by Francisco Javier López Espinosa (OB) (<https://observation.org/observation/302971067/>); Carthagène, 37.60643°N -1.06011°E (un. not recorded), 15.VI.2022, 1 specimen (Fig. 2), photo by Laurent Bouvin (IN) (<https://www.inaturalist.org/observations/121876896>); Mazarrón, 37.5727°N -1.3638°E (un. not recorded), 30.IV.2011, 1 specimen, photo by Jose Carrillo Lopez (OB) (<https://observation.org/observation/302875495/>); Lorca, 37.5442°N -1.6303°E (un. not recorded), 5.V.2012, 1 specimen, photo by Jose Carrillo Lopez (OB) (<https://observation.org/observation/302907897/>); *idem*, 37.5429°N -1.6260°E (un. not recorded), 10.VI.2012, 1 specimen, photo by Jose Carrillo López (OB) (<https://observation.org/observation/302917222/>); 37.5394°N -1.6280°E (un. not recorded), 22.VII.2012, 1 specimen, photo by Jose Carrillo López (OB)

(<https://observation.org/observation/302920734/>); Águilas, 37.4226°N -1.5683°E (un. not recorded), 31.III.2012, 1 specimen, photo by Jose Carrillo Lopez (OB) (<https://observation.org/observation/302904776/>); *idem*, 37.4240°N -1.5571°E (un. not recorded), 14.V.2011, 1 specimen, photo by Jose Carrillo Lopez (OB) (<https://observation.org/observation/302878210/>).

Andalusia: Almería, Mojácar, La Parata, 37.11952°N -1.83771°E (un. = 193 m), 26.VII.2021, 1 specimen, photo by “dianax” (IN)

(<https://www.inaturalist.org/observations/88681620>); Tabernas, 37.0850°N -2.3055°E (un. not recorded), 19.XI.2015, 1 specimen, photo by “faluke” (OB)

(<https://observation.org/observation/302958327/>); *idem*, 37.03902°N -2.41617°E (un. not recorded), 3.II.2023, 1 specimen, photo by “faluke” (IN)

(<https://www.inaturalist.org/observations/147954028>); Almería, Camino de la Goleta, 36.8364°N -2.4373°E (un. = 5 m), 1.VI.2021, 1 specimen, photo by Chema Méndez (OB) (<https://observation.org/observation/215584707/>); *idem*, 36.8187°N -2.4253°E (un. not recorded), 19.II.2019, 5 specimens (juvenile)

and 1 cocoon, photo by “faluke” (OB) (<https://observation.org/observation/302979808/>); Vicar, 36.8168°N -2.6624°E (un. not recorded), 2.III.2019, at least 17 specimens (juveniles), photo by “faluke” (OB)

(<https://observation.org/observation/302980003/>); Adra, 36.7899°N -3.1003°E (un. not recorded), 6.VI.2012, 1 specimen, photo by “faluke” (OB)

(<https://observation.org/observation/302911775/>); El Ejido, Punta Entinas-Sabinar, 36.6923°N -2.7021°E (un. not recorded), 6.V.2019, 1 specimen, at least 17 specimens (juveniles),

(<https://observation.org/observation/302982057/>); Níjar, 36.8496°N -2.2336°E (un. not recorded), 9.XII.2018, at least 17 specimens (1 female and 16 juveniles), photo by “faluke” (OB)

(<https://observation.org/observation/302978698/>); *idem*, 36.74999°N -2.12235°E (un. = 61

m), 22.XI.2012, about 75 specimens (juveniles), photo by “faluke” (IN) (<https://www.inaturalist.org/observations/138403987>); near Los Moras, 36.78298°N - 3.11773°E (un. = 15 m), 7.VII.2012, 1 specimen, photo by “faluke” (IN) (<https://www.inaturalist.org/observations/138403717>); Granada, Castelléjar, 37.7161°N - 2.6423°E (un. = 5 m), 11.X.2024, 1 specimen, photo by “Ldesa” (OB) (<https://observation.org/observation/331980576/>); Pórtugos, 36.9728°N -3.3232°E (un. = 3 m), 2.VII.2022, 1 specimen, photo by Roy Kleukers (OB) (<https://observation.org/observation/247862108/>); Turón, 36.8373°N -3.1012°E (un. = not recorded), 7.VII.2012, 1 specimen, photo by “faluke” (OB) (<https://observation.org/observation/302913892/>); Cadiz, Rota, 36.67188°N -6.40254°E (un. = 563 m), 1.V.2016, 1 specimen, photo by Antonio J. Pizarro Méndez (IN) (<https://www.inaturalist.org/observations/7874864>); Vejer de la Frontera, 36.2073°N -6.0548°E (un. not recorded), 1.VII.2011, 1 specimen, photo by Enrique Hernández (OB) (<https://observation.org/observation/302887049/>); La Línea de la Concepción, 36.1677°N - 5.3515°E (un. = 5 m), 1.VII.2019, 1 specimen, photo by Rafael Cerpa (OB)

(<https://observation.org/observation/175569536/>); Tarifa, Bolonia, 36.0899°N -5.7623°E (un. not recorded), 9.VI.2011, 1 specimen, photo by Daniel Rojas Pichardo (OB) (<https://observation.org/observation/302949214/>); Huelva, Lagunas Peridunares de Doñana, 37.0611°N -6.4454°E (un. not recorded), 12.V.2022, 1 specimen, photo by Javier Calzada (OB) (<https://observation.org/observation/241271439/>).

Discussion

Many new records of *L. tredecimguttatus* are added in the Peninsular Spain, allowing to better define the distribution of this spider in this country. In particular, in addition to providing new data for provinces (Barcelona, Cuenca, and Tarragona) where records available in the literature dated back more than a century, the occurrence of this spider is reported for the first time in five provinces: Girona, Cáceres, Castellón, Granada, Huelva. The updated distribution of *L. tredecimguttatus* in the Peninsular Spain (Fig. 3).

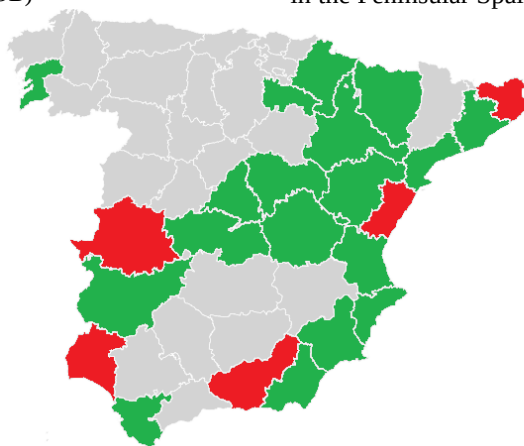


Fig. 3. Update distribution of *Latrodectus tredecimguttatus* in Peninsular Spain. Green = regions where the species known; red = regions with new records; grey = regions with no records.

Fig. 3. Actualització de la distribució de *Latrodectus tredecimguttatus* a l'Espanya peninsular. Verd = regions on es coneix l'espècie; vermell = regions amb registres nous; gris = regions sense registres.

Although it is an impressive and medically important species, the knowledge of the distribution of *L. tredecimguttatus* still needs to be better specified in Spanish territory and further studies will be needed to give satisfactory information on the diffusion of this spider in Spain.

Acknowledgements

I would like to thank all the photographers who uploaded observations on the web.

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