

Confirmation of *Pellenes bonus* (Araneae: Salticidae) in Turkey

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Abstract. This short paper reports a salticid species which is new for the araneofauna of Turkey. The characteristic features and photographs of *Pellenes bonus* Logunov, Marusik & Rakov, 1999 are presented. The distribution of this species in Turkey is also mapped.

Keywords. Hakkari Province, jumping spiders, new record

Introduction

The family Salticidae Blackwall, 1841 is placed in the suborder of araneomorph spiders (Labidognatha), ranging in size from small to large. Salticids are easily distinguished from other families in that the anterior median eyes are larger than the other eyes (Jocqué & Dippenaar-Schoeman, 2006). The Salticidae is the most speciose family of the Order Araneae, including 658 genera and 6343 species (World Spider Catalog, 2021). The genus *Pellenes* Simon, 1876 is represented by 83 species in this large family (World Spider Catalog, 2021). It is represented by 25 species in Europe (Nentwig et al., 2021). Until now, 147 salticid species belong to 42 genera have been reported from Turkey (Coşar & Danışman, 2021; Danışman *et al.*, 2019), including 8 species assigned to the genus *Pellenes*. These species are *P. brevis* (Simon, 1868), *P. diagonalis* (Simon, 1868), *P. epularis* (O. Pickard-Cambridge, 1872), *P. flavipalpis* (Lucas, 1853), *P. geniculatus* (Simon, 1868), *P. moreanus* Metzner, 1999, *P. nigrociliatus* (Simon, 1875) and *P. seriatus* (Thorell, 1875) (Danışman et al. 2019). In this study, we add one jumping spider species as a new record to the spider fauna of Turkey. This species is *Pellenes bonus* Logunov, Marusik & Rakov, 1999. With this description, the number of known salticids in Turkey is raised to 148 species.

Material and Methods

Specimens living under stones were collected by using a hand aspirator, in Hakkari Province of southeastern Turkey in 2019 (Figure 1). Digital images were created using a Canon EOS 250D camera attached to Leica S8APO microscope. Pictures were edited using "Combine ZM" and "Photoshop CC 2019" software. Logunov et al., 1999 and Mirshamsi et al., 2013 publications were used for identification. Specimens are deposited in 70% ethanol in the arachnid collection at the Hakkari University Zoological Museum (HAKZM). The map showing the distribution of the species in this study was generated with the SimpleMappr <https://www.simplemappr.net/api> (Shorthouse 2010). All measurements are taken in millimeters. Leg measurements are shown as the femur, patella, tibia, metatarsus, tarsus, total length.

The following abbreviations are used: ALE—anterior lateral eyes, AME—anterior median eyes, PLE—posterior lateral eyes, PME—posterior median eyes.



Figure 1. Distribution map of *Pellenes bonus* Logunov, Marusik & Rakov, 1999 in Turkey.

Taxonomy

Family Salticidae Blackwall, 1841

Genus *Pellenes* Simon, 1876, type species *Pellenes tripunctatus* (Walckenaer, 1802)

***Pellenes bonus* Logunov, Marusik & Rakov, 1999**

Pellenes bonus Logunov, Marusik & Rakov, 1999: 103, f. 36-39 (Dm),

Pellenes bonus Mirshamsi et al., 2013: 118, f. 5-6 (m),

Pellenes bonus Kovblyuk et al., 2016: 93, f. 241-244 (m).

Material examined. 2♂, Turkey, Hakkari Province, Boybeyi Village, Dikilitaş Hamlet, 37°47'06"N, 44°04'48"E, 1812 m, 17.05.2020, leg. M. Erdek.

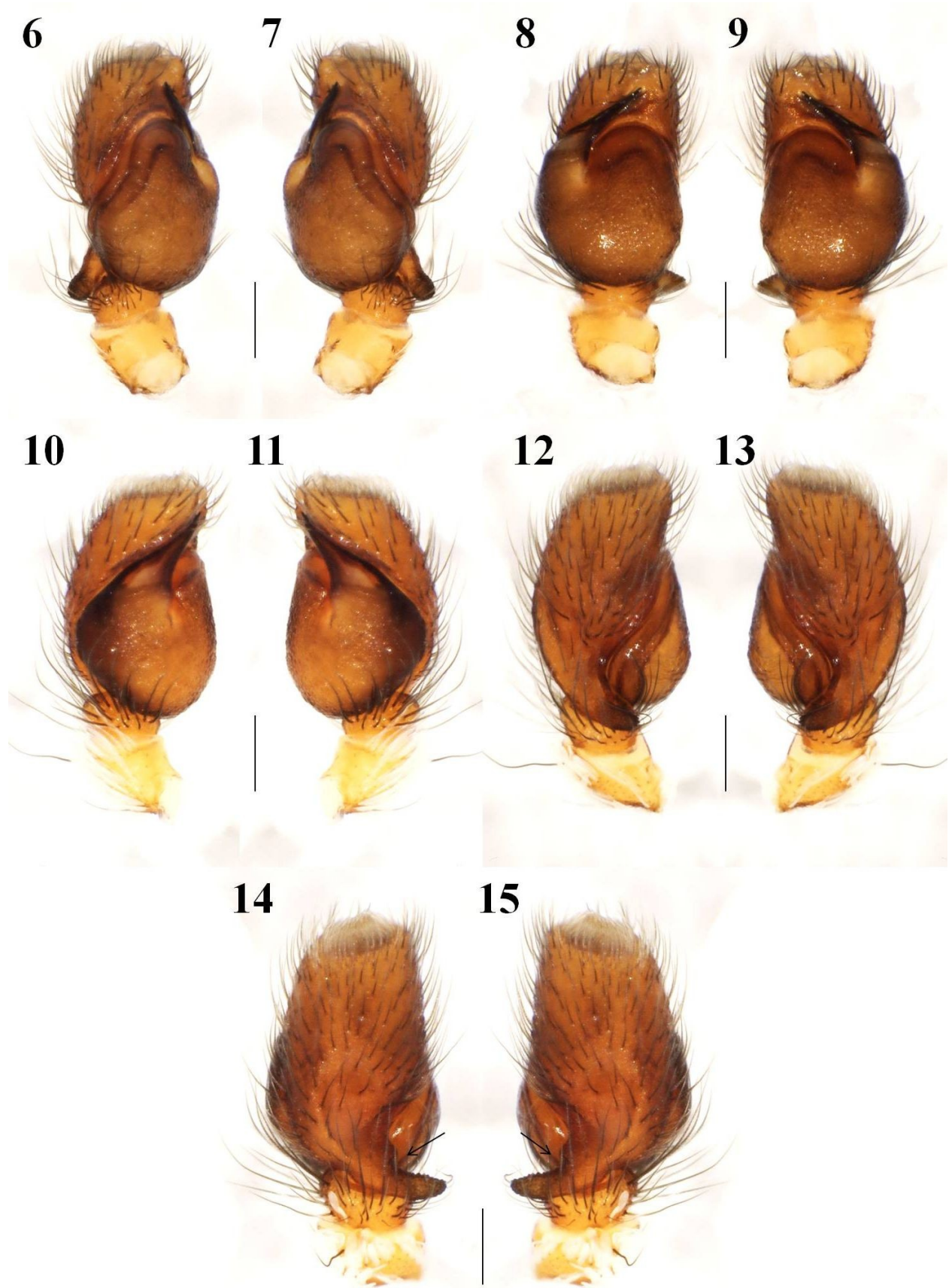
Distribution. Ukraine (Crimea), Azerbaijan, Iran, Turkmenistan (World Spider Catalog, 2021).

Description of male. Measurements: Total length 4.70. Prosoma 2.10 long, 1.15 wide, 0.95 high. Abdomen 2.0 long, 1.50 wide, 1.30 high. Ocular area 1.15 long. Sternum 0.80 long, 0.70 wide. Chelicerae 0.80 long, 0.45 wide. Eye diameter and inter-distances: AME: 0.35, ALE: 0.15, PME: 0.05, PLE: 0.15, AME-AME: 0.05, AME-ALE: 0.07, PME-PME: 1.10, PME-PLE: 0.25, PLE-ALE: 0.45. Leg formula III, I, IV, II. Lengths of legs: Leg I: Fe: 1.15, Pa: 0.60, Ti: 0.85, Mt: 0.60, Ta: 0.50, Total: 3.70; Leg II: Fe: 0.90, Pa: 0.45, Ti: 0.60, Mt: 0.40, Ta: 0.35, Total: 2.70; Leg III: Fe: 1.20, Pa: 0.65, Ti: 0.85, Mt: 0.60, Ta: 0.50, Total: 3.80; Leg IV: Fe: 1.0, Pa: 0.50, Ti: 0.70, Mt: 0.60, Ta: 0.50, Total: 3.30.

Prosoma dark brown, covered with dark hairs. PME with tufts of bristles posteriorly (Figure 2). Clypeus narrow, light brown, densely covered with black and orange color hairs. AME surrounded by dense orange hairs. Chelicerae long, dark brown, with dark hairs (Figure 5). Sternum yellowish-brown (Figure 3). Abdomen dark brown, dorsally with a white longitudinal line, ventral yellowish gray and covered with white hairs (Figure 2). Leg I dark brown, densely covered with dark hairs. Legs II-IV light brown and covered with dark hairs. Spinnerets yellowish-brown (Figure 2). Pedipalp light brown with dark hairs. The tibia of the pedipalp with long dark hairs, and the patella with white long hairs. Cymbium protrudes by curving outwardly in the dorsal direction (shown with an arrow in Figures 14-15). The tip of this protrusion is toothed and there is another protrusion in the form of a hillock in the middle. Bulb broad and protruding outwardly. The embolus is narrowing towards the tip. Pedipalp as in Figures 6-15.



Figures 2-5. *Pellenes bonus* Logunov, Marusik & Rakov, 1999, male, habitus. 2, Dorsal view. 3, Ventral view. 4, Lateral view. 5, Frontal view. Scale bars: 0.5 mm.



Figures 6-15. *Pellenes bonus* Logunov, Marusik & Rakov, 1999, male, pedipalp. **6-7,** Retrolateral view. **8-9,** Ventral view. **10-11,** Prolateral view. **12-13,** Dorso-retrolateral view. **14-15,** Dorsal view. Scale bars: 0.2 mm.

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