**Pardosa roscai** (Roewer, 1951), a spider new to the fauna of Turkey (Araneae: Lycosidae)

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**Abstract:** *Pardosa roscai* (Roewer, 1951), a spider new to the Turkish fauna, is redescribed and illustrated (male/female). The taxon was re-elevated to species rank: *Pardosa cribrata roscai* (Roewer, 1951) = *Pardosa roscai* (Roewer, 1951).

**Key words:** Taxonomy, Lycosidae, *Pardosa cribrata*, *Pardosa proxima* species group, alfalfa, cotton, new record, Turkey

**Introduction**

The genus *Pardosa* C. L. Koch, 1847 in Turkey currently includes 27 species (Topcu et al., 2005; Platnick, 2008), which is comparable to the respective numbers from neighboring countries: Bulgaria, 34 (Deltshev and Blagoev, 2001); and Greece, 27 (Bosmans and Chatzaki, 2005). The species *Pardosa roscai* (Roewer, 1951) was first described by Rosca (1939) as *Lycosa maculata* (preoccupied by Hahn, 1822). Later, Roewer (1951) gave the new name *Lycosa roscai* (replacement name), but Fuhn and Niculescu-Burlacu (1971) reduced the species to a subspecies: *Pardosa cribrata roscai*.

Upon reanalyzing the taxonomic characteristics of the species we propose its re-elevation to species rank: *Pardosa cribrata roscai* (Roewer, 1951) = *Pardosa roscai* (Roewer, 1951).
The new figures of *Pardosa roscai* in comparison with those of *Pardosa cribrita* Simon, 1876 clearly show differences between the terminal and tegular apophyses, and between the ventral and dorsal views of the epigyne and vulva (Figures 1-5).

Currently, the species is known in Bulgaria (Black Sea coast, Struma Valley) and Romania (Dobrudzha region). The discovery of *Pardosa roscai* in Turkey provides the opportunity to present a redescription of the species accompanied by new illustrations.

**Materials and methods**

The specimens were collected from alfalfa and cotton fields located in Akçakale, Şanlıurfa (36°72´N, 38°91´E, 390 m), using a 38-cm diameter sweep net and mouth aspirator. Sampling was conducted between March and September 2006. Collected samples were placed in a plastic bag containing a paper towel to reduce humidity and taken to the laboratory in an insulated cooler. Individuals collected with mouth aspirators were taken to the laboratory in small cylindrical plastic cups (3 × 4 cm). All collected specimens, including juveniles, were placed in plastic tubes containing 70% alcohol. Coloration is described based on alcohol-preserved specimens. Measurements of the legs were taken from the dorsal side. Total length of the body includes the chelicerae. All measurements are given in millimeters.

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**Figures 1-5.** *Pardosa roscai* (Roewer, 1951). 1. Male palp, ventral view. 2. Male palp, retrolateral view. 3. Epigyne ventral view. 4. Vulva, dorsal view. 5. Vulva, ventro-aboral view. Scale lines: 1, 2, and 3: 0.3 mm; 3 and 4: 0.2 mm.
The following abbreviations are used in the text, tables, and figures: AME: anterior median eyes; AML: anterior lateral eyes; PLE: posterior lateral eyes; PME: posterior median eyes; Fe: femur; Pt: patella; Ti: tibia; Mt: metatarsus; Ta: tarsus.

The figures of *Pardosa cribulata* Simon, 1876 were taken from Blagoev (2005).

**Results**

**Taxonomy:** Lycosidae C. L. Koch, 1837

*Pardosa* C. L. Koch, 1847

*Pardosa roscai* (Roewer, 1951) Figs 1-5

*Lycosa maculata* Rosca, 1939: 95, f. 7-9; *L. roscai* Roewer, 1951: 438; *P. bulgarica* Buchar, 1968: 124, f. 4D-G; *P. cribulata roscai* Fuhn and Niculescu-Burlacu, 1971: 90, f. 37a-e.


Male: Total length 4.50. Cephalothorax, 2.47 × 1.87.


Eyes. Width of row I: 0.52 (slightly procurved as seen from the front); row II: 0.67; row III: 0.90; row II-III: 0.67. Diameter of AME: 0.15; ALE: 0.08; PME: 0.33; PLE: 2.2. Distance between AME: 0.15; between AME and ALE: 0.7.

Opisthosoma. Dorsally grayish with a yellow pattern, ventrally yellow.

Legs. Yellowish. Coxae dorsally brown. Femora yellowish, remaining segments unicolored. Leg formula IV/III/I/II. Leg measurements presented in Table 1.

Male palp (Figures 1-2). Fe: 0.97; Pt: 0.75; Ti: 0.60; Ta: 0.97. Palp dark brown with dark hairs. Tegular apophysis triangular, slightly folded basally. Terminal apophysis forms a sclerotized tooth, more or less concealed by the conductor in ventral view. Conductor large and bifurcated. Embolus long, slightly curved and tapered.

Female: Total length: 6.00. Cephalothorax, 2.62 × 2.02.


Eyes. Width of row I: 0.52 (slightly procurved as seen from in front); row II: 0.67; row III: 0.90; row II-III: 0.67. Diameter of AME: 0.15; ALE: 0.08; PME: 0.33; PLE: 2.2. Distance between AME: 0.15; between AME and ALE: 0.7.

Opisthosoma. Dorsally brown to dark brown. Abdominal pattern yellowish. The 4 or 5 spots following the anterior lanceolate band are sometimes more or less fused.

Legs. Brown to yellowish. Coxae dorsally brown. Femora reddish and annulated dark; seldom yellow with pale annulations. Leg formula IV/III/I/II. Females’ leg measurements are presented in Table 2.

### Table 1. *P. roscai* male leg measurements (mean ± standard error) (n = 3).

<table>
<thead>
<tr>
<th>Legs</th>
<th>Fe</th>
<th>Pt</th>
<th>Ti</th>
<th>Mt</th>
<th>Ta</th>
<th>Total length</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1.72 ± 0.00</td>
<td>0.87 ± 0.02</td>
<td>1.60 ± 0.05</td>
<td>1.69 ± 0.02</td>
<td>1.20 ± 0.00</td>
<td>7.09 ± 0.10</td>
</tr>
<tr>
<td>II</td>
<td>1.72 ± 0.00</td>
<td>0.80 ± 0.05</td>
<td>1.54 ± 0.02</td>
<td>1.65 ± 0.00</td>
<td>1.20 ± 0.00</td>
<td>6.34 ± 0.59</td>
</tr>
<tr>
<td>III</td>
<td>1.72 ± 0.00</td>
<td>0.77 ± 0.02</td>
<td>1.50 ± 0.00</td>
<td>1.67 ± 0.02</td>
<td>1.24 ± 0.02</td>
<td>6.93 ± 0.02</td>
</tr>
<tr>
<td>IV</td>
<td>2.20 ± 0.05</td>
<td>0.90 ± 0.00</td>
<td>2.05 ± 0.10</td>
<td>2.80 ± 0.05</td>
<td>1.53 ± 0.03</td>
<td>9.48 ± 0.20</td>
</tr>
</tbody>
</table>
**Epigyne and vulva (Figures 3-5).** Flask-shaped. Cavities separated by a septum of variable width.

**Discussion**

*Pardosa roscai* belongs to the *P. proxima* species group (Zyuzin, 1979), closely resembling *P. cribrata* (C. L. Koch, 1847) and *P. hortensis* (Thorell, 1872). Males of *P. roscai* can be differentiated from *P. cribrata* by the shape of the terminal (wider and not so sharp) and tegular apophyses (more triangular). Females of *P. roscai* are differentiated from *P. cribrata* females by the following characters: wider anterior pockets, smaller cavities, and broader septum (Figures 1-9).

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### Table 2. *P. roscai* female leg measurements (mean ± standard error) (*n* = 5).

<table>
<thead>
<tr>
<th>Legs</th>
<th>Fe</th>
<th>Pt</th>
<th>Ti</th>
<th>Mt</th>
<th>Ta</th>
<th>Total length</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2.02 ± 0.07</td>
<td>0.91 ± 0.05</td>
<td>1.69 ± 0.11</td>
<td>1.63 ± 0.08</td>
<td>1.19 ± 0.04</td>
<td>7.45 ± 0.37</td>
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<tr>
<td>II</td>
<td>1.93 ± 0.06</td>
<td>0.81 ± 0.03</td>
<td>1.60 ± 0.06</td>
<td>1.54 ± 0.05</td>
<td>1.16 ± 0.03</td>
<td>7.05 ± 0.25</td>
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<tr>
<td>III</td>
<td>1.96 ± 0.10</td>
<td>0.86 ± 0.05</td>
<td>1.63 ± 0.13</td>
<td>1.84 ± 0.07</td>
<td>1.39 ± 0.05</td>
<td>7.70 ± 0.30</td>
</tr>
<tr>
<td>IV</td>
<td>2.60 ± 0.16</td>
<td>0.98 ± 0.04</td>
<td>2.30 ± 0.11</td>
<td>3.05 ± 0.09</td>
<td>1.63 ± 0.08</td>
<td>10.59 ± 0.47</td>
</tr>
</tbody>
</table>

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References


