Notes on the malacofauna of Ismaros Mts. (N Greece, Rhodopi County)

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The Ismaros Mts. is a small mountain massif (highest point: Ismaros Peak, 681 m) situated about 40 km west of Alexandroupolis town (North Greece) reaching the shore line of the Aegean Sea (Fig. 1). Maquis consisted mainly by the evergreen shrub Quercus coccifera L. dominate the rocky landscapes. There are also some relatively large areas occupied by Platanus orientalis L. forests along small rivers and drying streams, and some olive tree Olea europaea L. plantations near the villages.

Figure 1. Study area: location of the Ismaros Mts., North Greece.
Table 1. The collection sites at Ismaros Mts. during present study.

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Coordinates</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.4.2015</td>
<td>West side of “Rock of Petrota”</td>
<td>N40 55 38.3 E25 36 49.5</td>
<td>102</td>
</tr>
<tr>
<td>10.4.2015</td>
<td>Small river near the road to Petrota beach</td>
<td>N40 52 57.7 E25 36 21.3</td>
<td>37</td>
</tr>
<tr>
<td>10.4.2015</td>
<td>Water source north of Maronia village</td>
<td>N40 55 00.5 E25 31 05.3</td>
<td>190</td>
</tr>
<tr>
<td>10.4.2015</td>
<td>Center of the Maronia village – small park</td>
<td>N40 54 25.6 E25 31 11.6</td>
<td>187</td>
</tr>
<tr>
<td>11.4.2015</td>
<td>Water source west of the road near “Rock of Petrota”</td>
<td>N40 55 30.5 E25 36 26.3</td>
<td>117</td>
</tr>
<tr>
<td>11.4.2015</td>
<td>The mountain crest west of loc. 5</td>
<td>N40 55 21.7 E25 36 17.7</td>
<td>192</td>
</tr>
<tr>
<td>11.4.2015</td>
<td>Surroundings of Petrota village</td>
<td>N40 54 01.7 E25 36 26.3</td>
<td>196</td>
</tr>
<tr>
<td>15.6.2015</td>
<td>Grassland and bushes near Platanitis village</td>
<td>N40 53 25.9 E25 29 29.1</td>
<td>41</td>
</tr>
<tr>
<td>15.6.2015</td>
<td>Olive tree plantation near Platanitis village</td>
<td>N40 53 23.2 E25 29 35.7</td>
<td>37</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Olive tree plantation at hotel Ismaros</td>
<td>N40 53 22.0 E25 29 00.6</td>
<td>37</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Yard of the hotel Ismaros</td>
<td>N40 53 23.3 E25 29 02.8</td>
<td>41</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>House yard in Platanitis village</td>
<td>N40 53 17.5 E25 28 38.8</td>
<td>26</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Another house yard in Platanitis village</td>
<td>N40 53 18.0 E25 28 56.3</td>
<td>33</td>
</tr>
<tr>
<td>16.6.2015</td>
<td><em>Platanus orientalis</em> forest along a river west of Platanitis village</td>
<td>N40 53 23.7 E25 28 42.9</td>
<td>18</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Phrygana grassland area at Platanitis beach</td>
<td>N40 53 14.5 E25 28 53.5</td>
<td>17</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Orgomeno forest (pine tree forest)</td>
<td>N40 56 39.9 E25 32 02.1</td>
<td>221</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Water source and grasslands around it between Maronia and Krovili villages</td>
<td>N40 56 47.3 E25 33 04.3</td>
<td>127</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Water source between Maronia and Krovili villages</td>
<td>N40 55 17.7 E25 31 06.0</td>
<td>208</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Under stones near a house wall in Maronia village</td>
<td>N40 54 35.0 E25 31 08.1</td>
<td>102</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Small park at the center of Maronia village with single <em>Platanus orientalis</em> trees</td>
<td>N40 54 26.4 E25 31 10.7</td>
<td>194</td>
</tr>
<tr>
<td>16.6.2015</td>
<td>Water source and floods around it east of Platanitis village</td>
<td>N40 54 01.8 E25 30 25.4</td>
<td>120</td>
</tr>
<tr>
<td>17.6.2015</td>
<td>Olive tree plantations near the road to Dionis temple</td>
<td>N40 53 12.7 E25 30 52.0</td>
<td>91</td>
</tr>
<tr>
<td>17.6.2015</td>
<td>Under stones and among tree and bush vegetation near the road to Dionis temple</td>
<td>N40 52 53.2 E25 31 00.4</td>
<td>64</td>
</tr>
<tr>
<td>17.6.2015</td>
<td>Maquis near the road to Dionis temple</td>
<td>N40 52 51.1 E25 31 03.5</td>
<td>59</td>
</tr>
<tr>
<td>28.9.2015</td>
<td>Bush vegetation at Agaio Charalambos Port</td>
<td>N40 52 25.6 E25 30 31.4</td>
<td>0</td>
</tr>
</tbody>
</table>

The information on the malacoфаuna of Ismaros Mts. is scarce. The only publication for terrestrial snails of this Greece region is this one of Reischutz (1988). He reported terrestrial snails from 2 localities near Maronia village:


No any data on freshwater molluscs of this area is available. Our study contributes to the knowledge on the fauna of Ismaros Mts., reporting 21 species as new records to this area (Table 1).

For the region of “Ismaros Mountains” we considered all the localities situated in the geographic borders of the hilly areas below Ismaros Peak defined by plain areas as a whole massif. We explored both natural and urbanized habitats, and mountain slopes at the sea-shore regions. The material was collected by hand or with sieves in 2015 during tree trips to the Ismaros Mts. from 25 localities (Table 1), and deposited in the collection of the first author.

A total of 30 mollusc species were registered at Ismaros Mts. from which 21 species were new records to this area (Table 2).
Table 2. Known mollusc species of Ismaros Mts.: in grey – new records for the area, lit. – species and localities reported by Reischutz (1988).

<table>
<thead>
<tr>
<th>Species</th>
<th>Locality</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Pisidium casertanum</em> (Poli, 1791)</td>
<td>5</td>
</tr>
<tr>
<td><em>Pomatias elegans</em> (O. F. Müller, 1774)</td>
<td>lit., 22</td>
</tr>
<tr>
<td><em>Truncatellina cylindrica</em> (Férussac, 1807)</td>
<td>24</td>
</tr>
<tr>
<td><em>Pyramidula rupestris</em> (Draparnaud, 1801)</td>
<td>lit.</td>
</tr>
<tr>
<td><em>Vallonia pulchella</em> (O. F. Müller, 1774)</td>
<td>19</td>
</tr>
<tr>
<td><em>Rupestrilla rhodia</em> (Roth, 1839)</td>
<td>lit., 24</td>
</tr>
<tr>
<td><em>Zebrina detrita</em> (O. F. Müller, 1774)</td>
<td>lit., 15</td>
</tr>
<tr>
<td><em>Chondrula microtragus</em> (Rossmässler, 1839)</td>
<td>lit., 11, 12, 13, 15</td>
</tr>
<tr>
<td><em>Mastus rossmaessleri</em> (L. Pfeiffer, 1846)</td>
<td>1</td>
</tr>
<tr>
<td><em>Bulgarica denticulata thessalonica</em> (Rossmaßler, 1839)</td>
<td>lit., 1, 6, 7, 13, 19, 22</td>
</tr>
<tr>
<td><em>Cecilioides acicula</em> (O. F. Müller, 1774)</td>
<td>lit.</td>
</tr>
<tr>
<td><em>Punctum pygmaeum</em> (Draparnaud, 1801)</td>
<td>22</td>
</tr>
<tr>
<td><em>Paralaoma servilis</em> (Shuttleworth, 1852)</td>
<td>24</td>
</tr>
<tr>
<td><em>Balcanodiscus cerberus</em> Riedel, 1985</td>
<td>lit., 1, 7</td>
</tr>
<tr>
<td><em>Vitreia contracta</em> (Westerlund, 1871)</td>
<td>22</td>
</tr>
<tr>
<td><em>Oxychilus hydatinus</em> (Rossmässler, 1838)</td>
<td>17</td>
</tr>
<tr>
<td><em>Tandonia kusceri</em> (H. Wagner, 1931)</td>
<td>14, 25</td>
</tr>
<tr>
<td><em>Tandonia</em> sp.</td>
<td>1</td>
</tr>
<tr>
<td><em>Limax graecus</em> (Simroth, 1889)</td>
<td>14</td>
</tr>
<tr>
<td><em>Deroceras cf. turcicum</em> (Simroth, 1894)</td>
<td>21</td>
</tr>
<tr>
<td><em>Deroceras thersites</em> (Simroth, 1886)</td>
<td>5</td>
</tr>
<tr>
<td><em>Lindholmiola girva</em> (Frivaldsky, 1835)</td>
<td>lit., 1, 13</td>
</tr>
<tr>
<td><em>Cernuella virgata</em> (Mendes da Costa, 1778)</td>
<td>17, 25</td>
</tr>
<tr>
<td><em>Monacha cartusiana</em> (O. F. Müller)</td>
<td>lit.</td>
</tr>
<tr>
<td><em>Monacha claustralis</em> (Menke, 1828)</td>
<td>8, 10, 12, 14, 15, 17, 19, 22, 25</td>
</tr>
<tr>
<td><em>Xerotricha conspurcata</em> (Draparnaud, 1801)</td>
<td></td>
</tr>
<tr>
<td><em>Xerolenta obvia</em> (Menke, 1828)</td>
<td></td>
</tr>
<tr>
<td><em>Helix lucorum</em> Linnaeus, 1758</td>
<td>4, 22, 25</td>
</tr>
<tr>
<td><em>Helix figulina</em> Rossmässler, 1839</td>
<td>lit.</td>
</tr>
<tr>
<td><em>Eobania vermiculata</em> (O. F. Müller, 1774)</td>
<td>20</td>
</tr>
<tr>
<td><em>Galba truncatula</em> (O. F. Müller, 1774)</td>
<td>18</td>
</tr>
<tr>
<td><em>Physella acuta</em> (Draparnaud, 1805)</td>
<td>3, 5</td>
</tr>
<tr>
<td><em>Planorbarius corneus</em> (Linnaeus, 1758)</td>
<td>3</td>
</tr>
<tr>
<td><em>Ancylus fluviatilis</em> O. F. Müller, 1774</td>
<td>2</td>
</tr>
</tbody>
</table>

The terrestrial snails were most abundant on species both in the maquis rocky terrains and at the human settlements. Poor on species were the olive tree plantations. Most of the aquatic molluscs were found in or around the water sources at their floods with and exception of *A. fluviatilis* (registered in a stream).
Visibly abundant population of the local endemic for Ismaros area *Balcanodiscus cerberus* was found under stones at vicinities of Petrota village (loc. 7). Active snails were registered during daytime both under stones and in small, well shaded rock niches near the village (Fig. 1). All specimens collected had well developed eyes. This data suggest that the *Balcanodiscus cerberus* previously supposed to be a subterranean species (loc. typ. Maronia cave), could be classified more correctly as troglophilous, with similar ecology like for example *B. frivaldskyanus* (Rossmässler, 1842), and like some *Oxychilus* species.

**References**