A new locality record of Caucasian parsley frog, Pelodytes caucasicus Boulenber, 1896 (Amphibia: Anura: Pelodiytidae) in the eastern Black Sea region of Anatolia

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Abstract. A new locality record for The Caucasian Parsley Frog, Pelodytes caucasicus from Hıdırnebi Plateau (Akcaabat, Trabzon) is presented based on our fieldwork in Black Sea Region in July 2012. Our record is a western range extension of approximately 15 km from the nearest reliable published locality.

Key words: Pelodytes caucasicus, Turkey, distribution, morphology, Anura.

The genus Pelodytes, which belongs to one of the oldest families of living anurans, includes three species currently recognized: Pelodytes punctatus (Daudin, 1803) (in western Europe), Pelodytes ibericus Sánchez-Herráz, Barbadillo, Machordom & Sanchiz, 2000 (in Iberian Peninsula) and Pelodytes caucasicus Boulenber, 1896 (Sánchez-Herráz et al. 2000). The Caucasian Parsley Frog, Pelodytes caucasicus is an endemic to Caucasus Region. It is known from a narrow strip ranging from the western Caucasus across Georgia to northern Azerbaijan, including the eastern Black Sea Region of Anatolia. First records of this species in Turkey were reported by Steiner (1968). In Turkey, according to published literature, it’s known from Trabzon, Rize and Artvin provinces (see below for the discussion on Ordu record) with a northern Azerbaijan, including the eastern Black Sea Region of Anatolia. First records of this species in Turkey were reported by Steiner (1968). In Turkey, according to published literature, it’s known from Trabzon, Rize and Artvin provinces (see below for the discussion on Ordu record) with a vertical distribution from near sea level to 1900 m. In addition, there is an uncertain record from Kars province based on personal communications (Steiner 1968, Başoğlu et al. 1994, Borkin 1999, Franzen 1999, 2012). Previously, some works has been carried out on distribution, ecology, breeding, age structure, helminth parasites, haematology, morphology and serology of P. caucasicus in Turkey (Steiner 1968, Franzen 1999, Ankan et al. 2003, Tosunoğlu & Taşkavak 2004, Ankan et al. 2007, Ermiş et al. 2009, Yıldırımhan et al. 2009). Franzen (1999) provided additional localities and information on ecology of P. caucasicus in the eastern Black Sea Region in Turkey. We report a new locality record of this species in Trabzon province (Turkey) in the present paper.

We found four Pelodytes caucasicus specimens in Hıdırnebi Plateau, Trabzon (elev. 1060 m) (Fig. 1) during our field excursion along the Black Sea Region in July 2012. ZMHRU 2012/144-1, 2 juv., Hıdırnebi Plateau (Akcaabat), Trabzon, Turkey, 18.07.2012. leg. B. Göçmen, B. Akman, N. Iççi, M. A. Oğuz, A. Adakul. Collected specimens were fixed and stored in 96% ethanol in order to keep DNA material more for future molecular studies (Göçmen et al. 2007) and deposited in the Zoology Museum of Harran University (ZMHRU) in Şanlıurfa, Turkey. Morphometric measurements taken using a digital caliper of 0.02 mm sensitivity (Mitutoyo 500-181 U) according to the previous literature (Terentjev & Chernov 1949, Tosunoğlu & Taşkavak 2004). The following morphometric measurements were taken: snout-vent length (SVL), head length (HL), head width (HW), interorbital distance (IO), eyelid width (EW), femur length (FL), tibia length (TL), inner metatarsal length (IMT), internasal distance (IN). Coloration features of the specimens were photographed while the animals were alive in their natural environment and in the laboratory.

In this report, we added a new locality record to previously known ones for P. caucasicus in Turkey with morphological features. Specimens were collected from a very humid forest in the late-afternoon. There were also small ponds and streams in the biotope. We recorded Mertensiella caucasica, Ommatotriton ophryticus, Rana macrocnemis, Bufo verrociosimus, Darevskia radii, Darevskia clarorun, Natrix natrix and Coronella austriaca as sympatric amphibians and reptiles with Pelodytes caucasicus.

Dorsums of collected specimens vary from light brown to olive-green and the venter is whitish gray (Fig. 2A). Morphometrical measurements of specimens are summarized in Table 1. Tosunoğlu & Taşkavak (2004) compared the morphology and serology of two populations of P. caucasicus from Uzungöl (Trabzon province) and Çaykara (Rize province). Our morphometrical measurements are generally concordant with this previous study. Head length and width of our two adult female specimens are slightly smaller than the values given by Tosunoğlu & Taşkavak (2004) possibly due to the smaller size of our specimens.

Table 1. Some metric characters (in mm) of Pelodytes caucasicus specimens included in the present study. Refer to the text for character abbreviations.

<table>
<thead>
<tr>
<th>Character</th>
<th>2012/144-1</th>
<th>2012/144-2</th>
<th>2012/144-3</th>
<th>2012/144-4</th>
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<tr>
<td>SVL</td>
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<td>37.81</td>
<td>30.13</td>
<td>24.38</td>
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<tr>
<td>HL</td>
<td>12.56</td>
<td>13.45</td>
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<td>HW</td>
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<td>13.37</td>
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<td>IO</td>
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<td>3.69</td>
<td>3.29</td>
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<td>EW</td>
<td>4.05</td>
<td>3.68</td>
<td>3.02</td>
<td>3.16</td>
</tr>
<tr>
<td>FL</td>
<td>16.05</td>
<td>15.42</td>
<td>12.92</td>
<td>8.94</td>
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<tr>
<td>TL</td>
<td>19.39</td>
<td>20.00</td>
<td>15.02</td>
<td>13.25</td>
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<tr>
<td>IMT</td>
<td>1.86</td>
<td>2.00</td>
<td>1.29</td>
<td>1.12</td>
</tr>
<tr>
<td>IN</td>
<td>3.43</td>
<td>2.88</td>
<td>2.61</td>
<td>2.90</td>
</tr>
</tbody>
</table>

According to previous published literature, P. caucasicus is known from 15 different localities in Turkey (Başoğlu et al. 1994, Franzen 1999, 2012, Afsar et al. 2012). One of them is an uncertain record from Zığına Pass (Trabzon/Gümüşhane) based on personal observations (specimen is not available) (Başoğlu et al. 1994). This locality is approximately 15 km air distance from the westernmost exact published locality.
New Locality of Pelodytes caucasicus


Figure 2. Adult female *Pelodytes caucasicus* from Hıdırnebi, Trabzon (A), general view of the biotope of *P. caucasicus* in Hıdırnebi (B), biotope destruction by deforestation in Hıdırnebi (C).
(north of Meryemana) to the west. Our new locality is approximately 18 km air distance from Meryemana locality to the north-west (15 km to the west), confirming the species’ range extension to the west compared to previous literature (Fig. 1).

There is a locality in the province of Ordu, Turkey in the IUCN distribution map of *P. caucasicus* (Kaya et al. 2012). Franzen (1999, 2012) discussed its reliability since there was no voucher or exact locality record in the literature. Although there is no available voucher specimen, Prof. David Tarkhnishvili stated that he had observed and photographed a juvenile *P. caucasicus* in Turnalik, Korgan, Ordu (Tarkhnishvili, Georgia, pers. comm. 2013). This situation emphasizes the need for field researches surveying Ordu for confirmation and the suitable areas between Trabzon and Ordu to clarify the distribution of *P. caucasicus* in Turkey. *P. caucasicus* is classified as “Near Threatened” under the criteria of IUCN Red List and its overall population is decreasing (Kaya et al. 2012). We observed deforestation as a threatening factor in the area we found the specimens (Fig. 2C). Limited studies on distribution and ecology of *P. caucasicus* yielded new localities in the northern Black Sea Region in Turkey. We reported a new locality record for *P. caucasicus* in the present paper. Since *P. caucasicus* has a narrow distribution area in the Caucasus Region, additional reports providing different localities like the present study will provide invaluable information for conservation and to estimate the distribution area of this species.

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References


