

## A new locality record of Caucasian parsley frog, *Pelodytes caucasicus* Boulenger, 1896 (Amphibia: Anura: Pelodytidae) 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 (Akçaabat, 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-Herráiz, Barbadillo, Machordom & Sanchiz, 2000 (in Iberian Peninsula) and *Pelodytes caucasicus* Boulenger, 1896 (Sánchez-Herráiz 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 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, Arıkan et al. 2003, Tosunoğlu & Taşkavak 2004, Arıkan et al. 2007, Erişmiş 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, 2 ♀♀, 2 juv., Hıdırnebi Plateau (Akçaabat), Trabzon, Turkey, 18.07.2012, leg. B. Göçmen, B. Akman, N. İğci, M. A. Oğuz, A. Adakul. Collected specimens were fixed and stored in 96% ethanol in order to keep DNA material more stable for future molecular studies (Göçmen et al. 2007) and deposited in the Zoology Museum of Harran University (ZMHRU) in Şanlıurfa, Turkey. Morphometrical 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 metric 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.

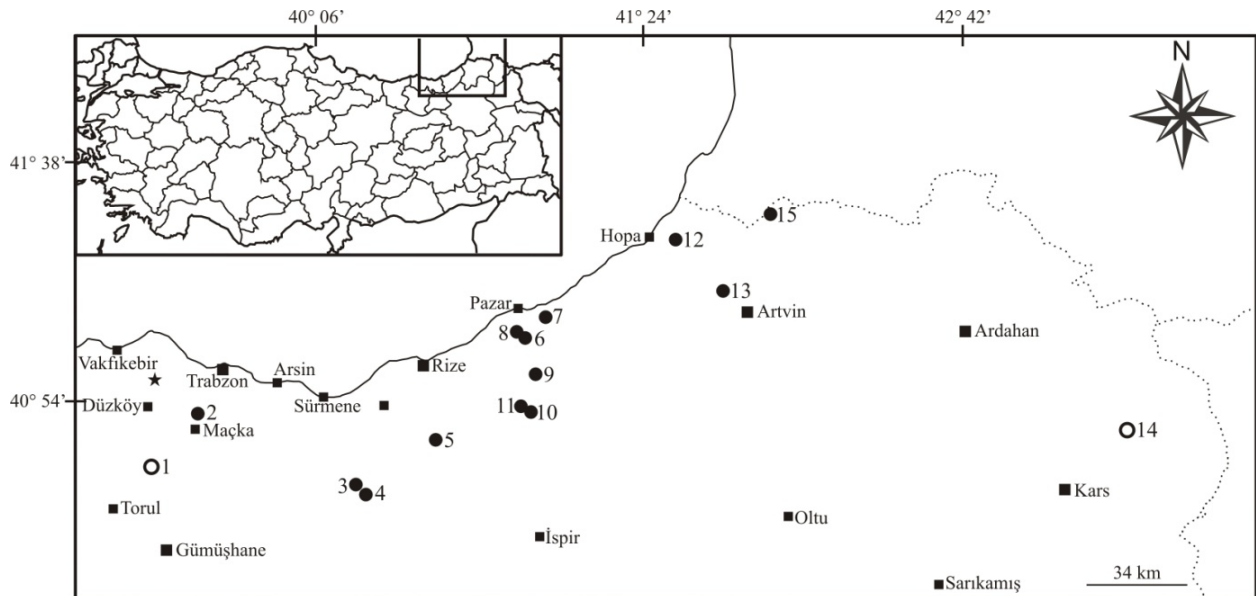
In this report, we added a new locality record to previously known ones for *P. caucasicus* in Turkey with morphological features. Specimens were collected from a very humid forest in the late-afternoon. There were also small ponds and streams in the biotope. We recorded *Mertensiella caucasica*, *Ommatotriton ophryticus*, *Rana macrocnemis*, *Bufo verrucosissimus*, *Darevskia rudis*, *Darevskia clarkorum*, *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.

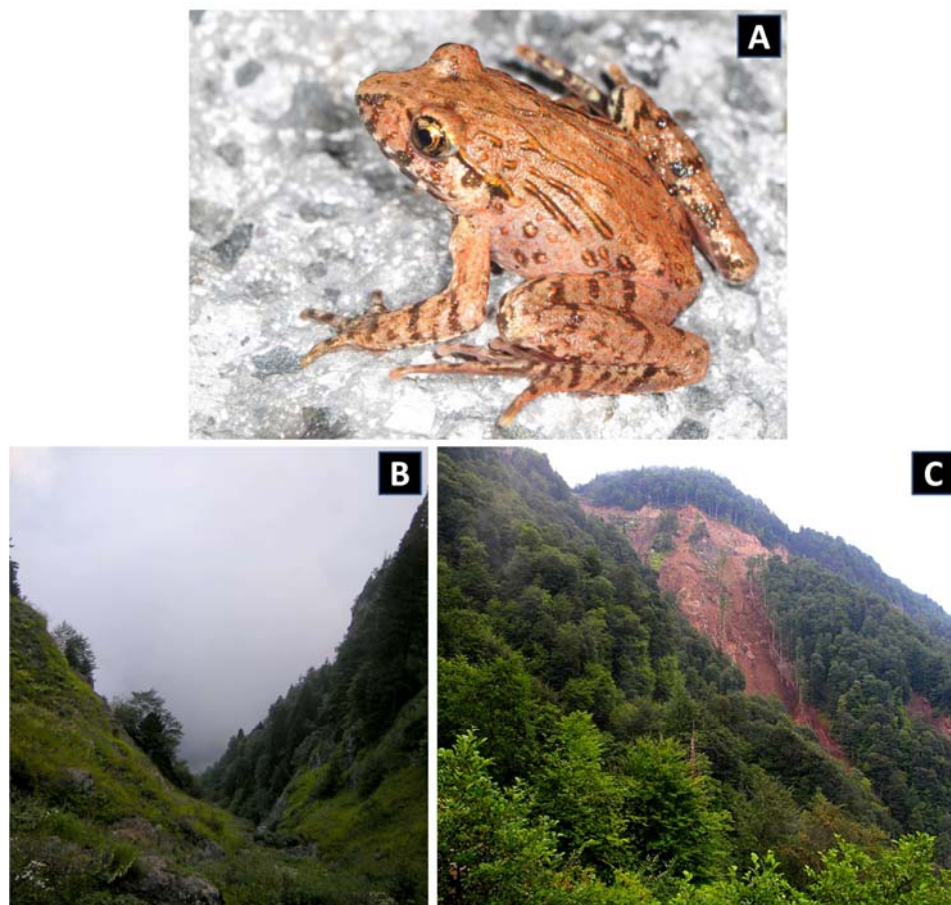
**Table 1.** Some metric characters (in mm) of *Pelodytes caucasicus* specimens included in the present study. Refer to the text for character abbreviations.

	2012/144-1 ♀	2012/144-2 ♀	2012/144-3 juv.	2012/144-4 juv.
SVL	37.55	37.81	30.13	24.38
HL	12.56	13.43	10.20	9.58
HW	13.34	13.37	10.72	8.47
IO	4.64	4.13	3.69	3.29
EW	4.05	3.68	3.02	3.16
FL	16.05	15.42	12.92	8.94
TL	19.39	20.00	15.02	13.25
IMT	1.86	2.00	1.29	1.12
IN	3.43	2.88	2.61	2.90

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 Zigana 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



**Figure 1.** Presently known localities (circles) of *Pelodytes caucasicus* in Turkey based on previous literature (Steiner 1968, Başoğlu et al. 1994, Franzen 1999, 2012, Afsar et al. 2012) and a new locality recorded in the present study (marked with a star). White circles indicate uncertain records (Başoğlu et al. 1994). 1: Zigana Pass, Trabzon/Gümüşhane; 2: North of Meryemana (Sümela), Trabzon; 3: 7 km South of Çaykara, Trabzon; 4: Uzungöl, Trabzon; 5: North of İkizdere, Rize; 6: Teziha (Pazar), Rize; 7: 8 km South of Ardeşen, Rize; 8: Şenyuva, Rize; 9: Ülkü, Rize; 10: Meydanköy, Rize; 11: Çat, Rize; 12: Cankurtaran pass, Artvin; 13: above Kafkasör, Artvin; 14: 20 km to the Kars from Artvin direction, Kars; 15: Camili Biosphere Reserve Area, Artvin; star: Hidirnebi Plateau, Akçaabat, Trabzon (new locality).



**Figure 2.** Adult female *Pelodytes caucasicus* from Hidirnebi, Trabzon (A), general view of the biotope of *P. caucasicus* in Hidirnebi (B), biotope destruction by deforestation in Hidirnebi (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 Turnalık, 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 localitiy 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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