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ON A NEW FINDING OF THE LOCAL ENDEMIC AMANOS DWARF SNAKE, *Muhtarophis barani* (SERPENTES: COLUBRIDAE) FROM SOUTHERN TURKEY

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ABSTRACT. *A new finding and range extension of poorly known local endemic Amanos Dwarf Snake,* Muhtarophis barani *from Kalecik village (Hasanbeyli district, Osmaniye province) is presented based on our fieldwork in southern Anatolia in April 2016. The new record represents the northernmost location and extends the distribution range of species about 36 km (air distance) to the north.*

KEY WORDS: *Amanos Mountains,* Muhtarophis barani*, distribution, endemic, Turkey.*

Amanos Dwarf Snake was described by Olgun et al. (2007) as *Rhynchocalamus barani*, based on two specimens (1 male, 1 female) from Amanos Mountains (34 km east of Dörtyol district, Hatay province, Turkey). The second location for the species has been recorded from Yayladağı district, southern part of Hatay province (Avcı et al. 2009). Later, the taxonomy of the *Rhynchocalamus barani* was reorganized and the genus "*Muhtarophis*" has been established with the molecular, morphological and other non-molecular investigations by Avcı et al. (2015). Then, the taxonomic status of the *Muhtarophis barani* confirmed and supported in the light of recent integrative revision of genus *Rhynchocalamus* and *Muhtarophis* (Tamar et al. 2016). Until now, only 13 specimens of *Muhtarophis barani* were known from two localities (12 from type locality and one from Yayladağı district) in Hatay province with a vertical distribution range between 550-1300 m a.s.l. (Avcı et al. 2015, Tamar et al. 2016).

In late April 2016, during a herpetological trip to southern Anatolia, we discovered a new location and encountered one specimen of Amanos Dwarf Snake "*Muhtarophis barani*" from Kalecik village, Hasanbeyli district, Osmaniye province at an elevation of 670 m (GPS: 37° 09' N, 36° 28' E). We avoided from providing the exact coordinates for reduce the motivation of illegal collection. The new locality record extends the distribution range of this poorly known local endemic species about 36 km air distance to the north from the nearest known locality (type locality in Hatay province). We photographed the Osmaniye specimen for provide a general aspect (Figure 1), and then released to its capture site, unharmed. Some metric measurements and pholidotic counts of Osmaniye specimen are given in Table 1. We also presented the metric and meristic data of the unmeasured six specimen published by Tamar et al. (2016) possibly from the nearby of type locality (ca. 2 km west of Çardak Plateau, Hassa district, Hatay province) in Table 1. The ventral plates were counted with the rule given by Dowling (1951).

Figure 1. General aspect of the *M. barani* specimen from new locality in Osmaniye province.

Osmaniye specimen mostly agrees with the original description (Olgun et al. 2007), except the numbers of sublabial and ventral plates. Osmaniye

Table 1. Metric and pholidotic characters of Osmaniye specimen and published but unmeasured specimens by Tamar et al. (2016) from type locality. *GS: Gular scales in a row between posterior inframaxillars and 1st ventral; GSI: Gular scales in a row between posterior inframaxillars; DST: Dorsal+Temporal scales surrounding the margin of parietals.

Museum Number	Osmaniye	2013/93	2014/60-1	2014/60-2	2014/60-3	2014/60-4	2014/60-5
Sex	Male	Female	Male	Female	Female	Male	Female
Preoculars L/R	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Loreals L/R	1/1	0/0	1/1	1/1	1/1	1/1	1/1
Postoculars L/R	2/2	2/2	2/2	2/2	2/3	2/2	2/2
Temporals L/R	1/1	2/2	1/2	1/1	2/1	2/2	2/2
Posttemporals L/R	1/1	1/0	2/2	2/3	2/2	2/1	2/2
Supralabials L/R	5/5	5/5	5/5	5/5	5/5	5/5	5/5
Sublabials L/R	6/6	6/6	6/7	6/6	7/6	7/7	7/6
GS*	4	4	4	4	4	4	4
GSI*	2	2	2	1	2	1	1
DST*	11	12	12	12	12	13	12
Ventrals	158	173	163	181	179	169	164
DSR (A/M/P)	17/17/17	17/17/17	17/17/17	17/17/17	17/17/17	17/17/17	17/17/17
Subcaudals L/R	72/72+1	65/65+1	71/71+1	63/63+1	66/66+1	73/73+1	65/65+1
Rostral Height	1.41	1.21	1.75	1.86	1.83	1.18	1.15

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Table 1. (continued)

Museum Number	Osmaniye	2013/93	2014/60-1	2014/60-2	2014/60-3	2014/60-4	2014/60-5
Rostral Width	2.62	1.81	2.31	2.88	2.67	1.78	1.85
Distance Between Nostrils	3.05	2.64	2.75	3.47	3.48	2.47	2.21
Eye Diameter	1.64	1.34	2.14	2.11	2.01	1.53	1.32
Supraocular Width	1.05	0.91	1.24	1.46	1.22	0.98	0.94
Frontal Length	2.74	2.04	3.46	3.55	3.57	2.33	2.37
Frontal Width	2.26	1.72	3.13	3.02	3.22	2.12	2.05
Anterior Inframaxillar Length	2.29	2.39	3.15	3.73	2.48	1.75	2.12
Posterior Inframaxillar Length	1.97	1.25	2.11	2.13	2.12	1.14	1.24
Pileus Length	7.88	6.25	8.93	9.26	9.07	6.56	6.35
Pileus Width	4.78	3.52	5.39	5.21	5.23	3.57	3.65
Head Length	10.12	7.77	11.49	12.65	11.14	7.98	7.35
Head Width	6.82	5.31	6.79	7.56	7.49	4.53	4.41
Head Height	4.07	3.17	5.05	5.89	4.76	3.51	3.56
Snout Vent Length	241	144	281	367	319	114	127
Tail Length	87	34	98	101	91	33	34

specimen has 6/6 (L/R) sublabials while type locality and Yayladağ specimens have seven to eight sublabials (Avcı et al. 2015). Osmaniye specimen has 158 ventral plates which is fewer than type locality specimens as mentioned by Avcı et al. (2009) for Yayladağı specimen (156 ventral plates), both located at lower elevations. Type locality specimens have higher number of ventral plates range between 163-181 with an altitude 1300 m a.s.l. (present study, Avcı et al. 2009). These results could be depend on the microgeographic variations and local selection pressures, such as elevational differences/similarities, diet, climate or other ecological factors (Mebert et al. 2017 and references therein). Beside, we present the tallest specimen (adult female, 2014/60-2) from the type locality for the species with 468 mm total body length (SVL+TL). Same specimen has also the highest number of ventral plates (181).

The new location is located about 1.5 km east of Kalecik village, Hasanbeyli district, Osmaniye province. The specimen was found under stones in a cloudy day between the olive garden and road covered with sparse Mediterranean scrubs. The specimen was encountered in 29 April 2016 at an air temperature of 15 °C. This location is the first unusual habitat for this species. Normally, the species was known from wooded area in Yayladağ district and intense vegetation in type locality (Olgun et al. 2007, Avcı et al. 2009). Osmaniye location is mostly disturbed by locals with landscape modifications for agricultural activities (Figure 2).

Figure 2. General view of the new location.

As a result of this survey, the distribution of this poorly known local endemic genus and species (*Muhtarophis barani*) was extended around 36 km to the north, and the number of the known specimens has risen to 14. We suggest that the extensive and comprehensive field studies should be conducted for clarify the range limits and number of populations along the Anatolian diagonal as expected in the near future.

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