Russian Journal of Herpetology Vol. 23, No. 4, 2016, pp. 261 – 270

SOME RECORDS OF REPTILES FROM THE PALESTINIAN TERRITORIES

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Submitted December 12, 2015

Distributional data for 36 species belonging to 13 families are presented for the reptiles of the Palestinian Territories. Scientific names were updated based on recent literature. This is the first account on the reptiles of West Bank (Palestinian Territories) and it addresses also challenges and needs for expanding such studies to serve as initial databases and in planning environmental conservation measures.

Keywords: Reptiles; Palestinian Territories; distribution; snakes; lizards.

INTRODUCTION

Reptilian biodiversity in Western Asia is relatively high due to its geologic history and being a connection between Asia, Europe, and Africa. Herpetological studies in Palestine started in the 19th century (Boettger, 1879; Tristram, 1884; Hart, 1891; Peracca, 1894; Werner, 1898). In this region we find both endemic and non-endemic elements belonging to various biogeographic zones: Ethiopian, Mediterranean, Saharo-Arabian, and Irano-Turanian (Werner, 1988; Amr and Disi, 2011). While significant studies were conducted on the reptiles in the areas occupied by Israel since 1948 (Barbour, 1914; Flower, 1933; Haas, 1943 and 1951; Schmidt, 1939; Mendelssohn, 1963 and 1965; Bar and Haimovitch, 2012), there are virtually no studies by local scientists on the herpetology of the occupied West Bank part. The Palestinian Territories have been recognized as a new state of Palestine by various international bodies including the UN General Assembly. A single publication on the reptiles of Gaza Strip was published by Abd Rabou et al. (2007) including 18 species of reptiles. The biodiversity of the Palestinian Territories was severely affected by the Israeli practices; including land confiscation, building of the segregation wall, soil erosion, damage to water resources, and overall habitat loss (Abdallah and Swaileh, 2011; Isaac and Hilal, 2011; Qumsiyeh, 1996; Qumsiyeh et al., 2014; Salman et al., 2014).

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After the establishment of the Palestine Museum of Natural History (PMNH) in 2014, one of its obligations was to study the neglected biodiversity of the West Bank. In this communication we report and document 36 species of reptiles at the collection of the Palestine Museum of Natural History.

MATERIAL AND METHODS

Specimens were collected from 53 localities across the Palestinian Territories of the West Bank through several field trips by the PMNH team (Table 1). All collected specimens are deposited at PMNH.

RESULTS AND DISCUSSION

36 species of reptiles representing 13 families (Testudinidae, Geoemydidae, Gekkonidae, Phyllodactylidae, Chamaeleonidae, Agamidae, Scincidae, Lacertidae, Typhlopidae, Boidae, Colubridae, Atractaspididae and Viperidae) were identified.

Family Testudinidae

***Testudo graeca terrestris* Forskål, 1775** (Fig. 1A)

Material examined. PMNH 7225, Ein Samiya, 7.9.2015. PMNH 7338, Ein Samiya, 26.8.2015. PMNH 7201, Wadi Al Mahkrour, 31.8.2015. PMNH 7235, PMNH 7236, Ein Samiya, 7.9.2015. PMNH 7339 – 7341, Ein Samiya, 26.8.2015. PMNH 6708, Wadi Fukin, 27.6.2015. PMNH 7390, Al Walaja, 7.8.2014.

Remarks. The spur-thighed tortoise is associated with the Mediterranean regions of the West Bank and

northern Palestine. It inhabits forested as well as shrub lands. It is under severe threat due to urban expansion and local trade and is listed as vulnerable according to the IUCN Red list.

Family Geoemydidae
***Mauremys rivulata* (Valenciennes, 1833)** (Fig. 1B)

Material examined. Observed in Ein El Beida, Nablus (Wadi Baidhan), and Jenin in 2014 and 2015.

Remarks. This is the only freshwater turtle known from the West Bank and Jordan. It occurs along the Jordan River in the Jordan Valley as well as inland freshwater habitats and polluted water resources in the Mediterranean area. An account on its morphometrics, habitat preference, growth and feeding in Jordan was published by Rifai and Amr (2004 and 2006). In a subsequent visit we saw that Ein El Beida water was being diverted and open surface water significantly diminished and we were able to note only two specimens.

Family Gekkonidae
***Hemidactylus turcicus* (Linnaeus, 1758)** (Fig. 1C)

Material examined. PMNH SB10 – 0188, Beit Sahour, 10.12.2010. PMNH 1636, Hussan, 13.10.2012. PMNH 1637, Hussan, 13.10.2012. PMNH 1761, Beit Sahour, 30.5.2013. PMNH 1797, Mansoura, 14.6.2013. PMNH 1823, Idhna, 24.6.2013. PMNH 3303, Mar Saba, 13.1.2014. PMNH 3844, Beit Sahour, 17.3.2014. PMNH 4443, Al Qarn, 9.6.2014. PMNH 5481, Ein Fassyil, 14.1.2015. PMNH 7010, Nablus, March, 2015.

Remarks. Moravec et al. (2011) revised the phylogeny of *Hemidactylus turcicus* of the Middle East based on mitochondrial DNA, revealing five phylogenetic lineages. *Hemidactylus dawudazraqi* was described to replace *H. turcicus* form Jordan and southern Syria. The systematics of the West Bank populations remains unknown, while those from the Golan were assigned to *Hemidactylus* cf. *turcicus* (Moravec et al., 2011). It was collected from all ecozones from arid regions such as Mar Saba to Mediterranean biotopes, and was encoun-

TABLE 1. List of Visited Localities and Their Coordinates

Location	N	E
Abu Dis	31°45′48.88″	35°15′25.66″
Ain Faris	31°41′25.76″	35°05′55.50″
Al Khader	31°41′41.61″	35°10′14.73″
Al Qarn	31°37′06.26″	35°07′33.35″
Al Walaja	31°43′46.58″	35°09′30.44″
Az Zawiya	32°05′45.75″	35°02′20.80″
An Nabi Salih	32°00′59.48″	35°07′28.23″
An Nuwei'ma	31°53′30.04″	35°26′26.99″
At Tayba	31°57′34.83″	35°17′55.00″
Ayda Camp	31°43′10.70″	35°11′55.44″
Bani Na'im	31°30′55.78″	35°09′54.64″
Battir	31°43′45.19″	35°08′14.45″
Beit Sahour	31°41′55.85″	35°13′40.50″
Bethlehem	31°42′16.92″	35°12′06.65″
Bi'lin	31°55′44.12″	35°04′15.17″
Bir Zeit	31°58′34.20″	35°11′34.01″
Dar Salah	31°42′20.73″	35°15′02.77″
Deir Hejla	31°49′13.63″	35°30′04.09″
Ein El Beida	32°22′52.96″	35°30′22.62″
Ein Fassyil	32°01′28.13″	35°26′47.83″
Ein Fwwar	31°50′26.93″	35°21′01.60″
Ein Hasaqa	31°33′54.71″	35°05′25.86″
Ein Samiya	31°59′25.57″	35°19′53.09″
Ein Yabrud	31°57′12.18″	35°14′59.65″
Farkha-Salfit	32°04′11.61″	35°08′50.09″
Hebron	31°32′00.76″	35°05′59.65″
Hindaza	31°41′07.34″	35°13′02.83″
Hussan	31°42′35.66″	35°07′48.89″
Idhna	31°33′36.16″	34°58′45.99″
Izbat Al Tabib	32°10′46.34″	35°02′07.64″
Jericho Crossing	31°48′23.96″	35°19′33.34″
Jericho-Ramallah road	31°55′17.46″	35°24′57.24″
Jerusalem	31°46′30.54″	35°11′38.45″
Jin Safut	32°10′51.40″	35°07′48.66″
Jubbat Adhdhib	31°39′50.09″	35°14′48.75″
Mansoura	32°23′11.74″	35°12′59.10″
Mar Saba	31°42′17.02″	35°19′51.55″
Mikhmas	31°52′16.30″	35°16′39.77″
Nablus	32°14′17.15″	35°15′22.75″
Nahhalin	31°41′09.99″	35°07′12.42″
Qalqiliya	32°11′46.13″	34°58′53.08″
Salfit	32°05′07.39″	35°10′50.64″
Suleiman Pool	31°41′20.62″	35°10′04.26″
Tlal Abu Al A'layek	31°51′05.11″	35°26′07.61″
Wadi Al Makhrour	31°42′49.23″	35°10′09.52″
Wadi Al Qullt	31°50′11.43″	35°22′34.71″
Wadi Fukin	31°42′24.75″	35°06′14.67″
Wadi Jericho	31°50′57.94″	35°28′17.40″
Wadi Qana	32°10′01.30″	35°08′43.07″
Wadi Quff	31°34′41.59″	35°03′38.71″
Wadi Rahhal	31°40′14.76″	35°10′42.61″
Wadi Ta'amrah'	31°38′51.17″	35°19′04.59″
Za'tara	31°40′28.99″	35°15′18.53″

tered in natural and man-made habitats, in buildings, houses, around plantations, on tree-trunks and on hard ground. The Turkish gecko is a nocturnal species.

***Mediodactylus kotschyi* (Steindachner, 1870)** (Fig. 1D)

Material examined. PMNH 3833, Wadi Quff, 16.3.2014. PMNH 6152, Bethlehem, 5.4.2015. PMNH 7146, Az Zawiya, 8.10.2015.

Remarks. Bauer et al. (2013) removed *kotschyi* from the genus *Cyrtopodion* based on molecular data. *Mediodactylus kotschyi* is distributed along the Aegean Islands, in Greece, the Balkans, Cyprus, southern Italy, the Levant reaching Georgia and Iran as well as south Crimea (Ananjeva et al., 2006; Sindaco and Jeremcenko, 2008). This species was found to occur in the oak and coniferous forests of the Mediterranean ecozone. Ajtić (2014) per-

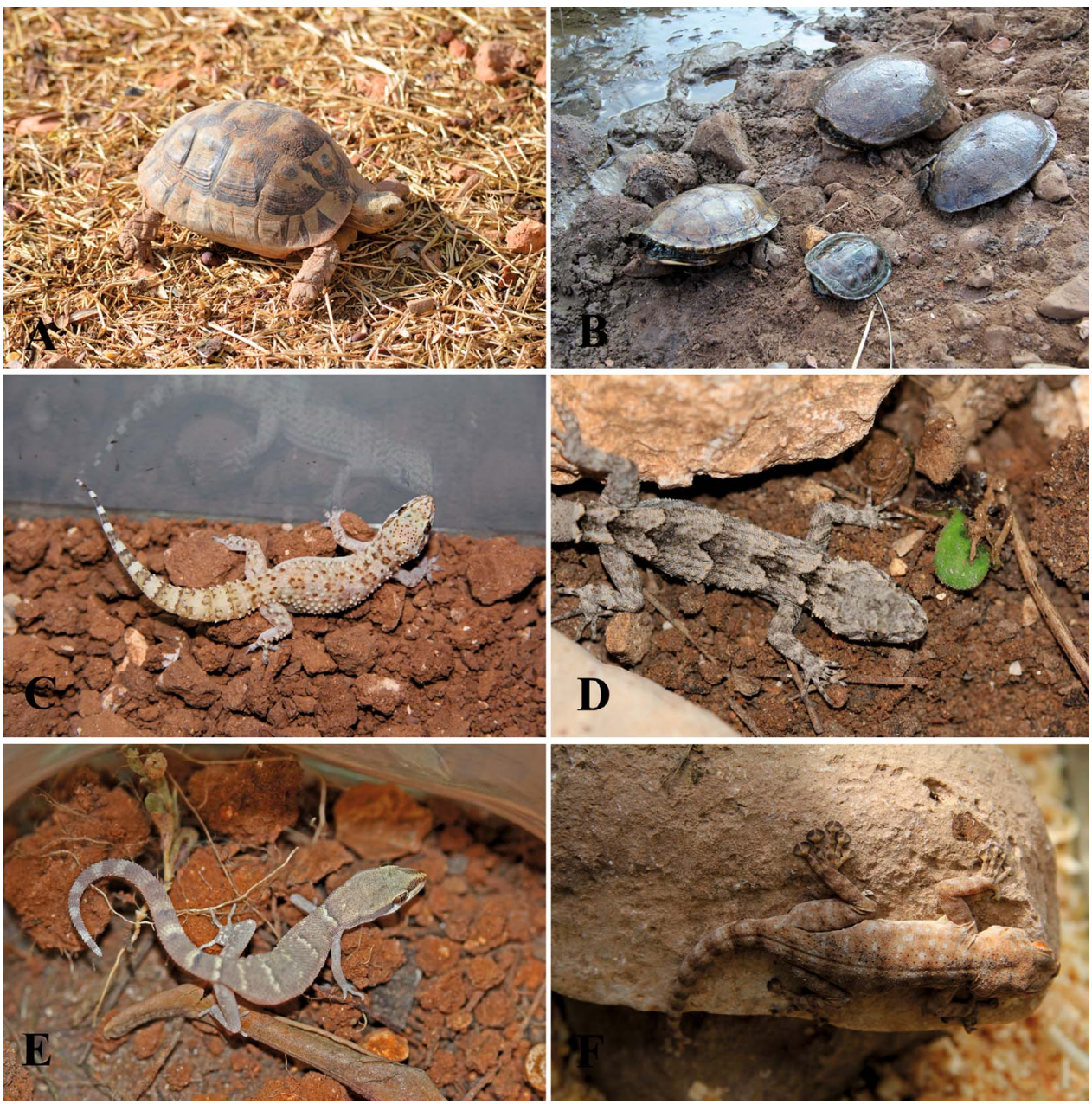

Fig. 1. A, *Testudo graeca terrestris*; **B**, *Mauremys rivulata*; **C**, *Hemidactylus turcicus*; **D**, *Mediodactylus kotschyi*; **E**, *Tropicolotes nattereri*; **F**, *Ptyodactylus guttatus*.

formed morphological, ecological, and biogeographic survey of the species in its main range and suggests that our specimens here and those from Turkey belong to the subspecies *orientalis*. Our records add the most southern distribution for the species in the Eastern Mediterranean region. The specimen from Wadi Quff was obtained from under a rock in a mixed (oak/pine) wooded area while that in Bethlehem from a trunk of a coniferous tree.

***Stenodactylus sthenodactylus* (Lichtenstein, 1823)**

Material examined. PMNH 1560, Ein Fassyil, 22.6.2012.

Remarks. The elegant gecko was found along the Dead Sea basin and further into the central Jordan Valley where it inhabits areas of loose soil with sparse vegetation.

***Tropicolotes nattereri* Steindachner, 1901** (Fig. 1E)

Material examined. PMNH 5427, Jericho-Ramallah road, 1.12.2015. PMNH 5535, Tlal Abu Al A'layek, 21.1.2015. PMNH 6712, Wadi Ta'amrah, 3.6.2015.

Remarks. This species is associated with the arid regions along the Jordan Valley and the Dead Sea Basin. Reported as *Tropiocolotes steudneri* from west of the Dead Sea area (Haas, 1943)

Family Phyllodactylidae
***Ptyodactylus guttatus* Heyden, 1827** (Fig. 1F)

Material examined. PMNH 1406, Dar Salah, 22.11.2010. PMNH 1407, Beit Sahour, 22.11.2010. PMNH 1723, An Nabi Salih, 5.5.2013. PMNH 1724, An Nabi Salih, 5.5.2013. PMNH 1747, Beit Sahour, 17.5.2013. PMNH 1753, Mikhmas, 25.5.2013. PMNH 1811, Al Walaja, 18.6.2013. PMNH 1989, Bi'lin, 7.7.2013. PMNH 3832, Wadi Quff, 16.3.2014. PMNH 3836, Wadi Quff, 16.3.2014. PMNH 4072, Wadi Quff, 3.5.2014. PMNH 4263, Ein Hasaqa, 24.5.2014. PMNH 5534, Tlal Abu Al A'layek, 21.1.2015. PMNH 6647, Hindaza, 5.5.2015. PMNH 7306, Wadi Ta'amrah, 21.9.2015. PMNH 7307, Wadi Ta'amrah, 21.9.2015. PMNH 7308, Wadi Ta'amrah, 21.9.2015.

Remarks. This rather common gecko inhabits the area in the East of the Dead Sea and extends northwards into the Jordan Valley as well as the Mediterranean mountains. This species has a high geographic variability but all geographic forms intergrade around the Dead Sea region. In southern Palestine *P. guttatus* and *hasselquistii* occurs symmetrically, while in the north *P. guttatus* and *P. puiseuxi* are parapatric (Werner and Sivan, 1994).

Family Chamaeleonidae
***Chamaeleo chamaeleon recticrista* Boettger, 1880**

Material examined. PMNH 7401, Bir Zeit, no date. PMNH 7402, Ein Yabrud, 28.8.2014. Observed and photographed specimens from Nablus, Bethlehem, Beit Sahour, Wadi Quff, Al Qurn, Al-Walaja, Al-Makhrour, and Jericho.

Remarks. The European chameleon is common in natural forests and areas with cultivated trees in the Mediterranean region. Vegetation cover is essential for its occurrence. Flower (1933) indicated several localities from Palestine; including Gaza and Jenin.

Family Agamidae
***Stellagama stellio brachydactyla* (Haas, 1951)**

Material examined. PMNH SB10 – 96, Beit Sahour, 4.9.2010. PMNH SB10 – 105, Al Walaja, 18.9.2010. PMNH 5344, Bethlehem, 26.6.2014. PMNH 7232, Ein Samiya, 7.9.2015.

Remarks. The genus *Stellagama* was erected by Baig et al. (2012) to include species of the former genus *Stellio* Laurenti, 1768. Daan (1967) reported that the populations in Syria, Lebanon, and Palestine are likely to form transitional groups in the north and in the south, where there is a gradual transition to surrounding populations. It inhabits areas of fairly hard substrates and prefers stony outcrops. Werner (1971) indicated the presence of this subspecies in southern Jordan, southern Palestine, and Sinai. It basks on a bush, stone, others and hides under bush, grass, stone or sand. Bar and Haimovitch (2012) stated that *Stellagama stellio picea* is distributed in the Mediterranean region from Beir Al Sabah southwards into the north. This is subspecies inhabits the black lava deserts of Jordan and Syria (Werner, 1992) and is not found in Palestine. This is perhaps the most common reptile in the occupied West Bank and we observed it in significant numbers in just about every locality visited.

Family Scincidae
***Ablepharus rueppellii* (Gray, 1839)** (Fig. 2A)

Material examined. PMNH 3809, Wadi Quff, 16.3.2014. PMNH 3921, Wadi Quff, 21.3.2014. PMNH 4073, Wadi Quff, 3.5.2014. PMNH 6022, Jin Safut, 19.3.2015. PMNH 6646, Izbat Al Tabib, May 2015.

Remarks. Festa's skink lives in the Mediterranean ecozone where it inhabits open areas and oak or pine forests. Roll et al. (2013) found this species to penetrate into the Al Naqb Desert and showed a map with localities in the northern and central areas of the West Bank.

Fig. 3. A, *Phoenicolacerta laevis*; **B**, *Mesalina guttulata*.

um spinosum bushes and piles of stones. Flower (1933) mentioned Jerusalem as a locality for this lizard.

***Ophisops elegans* Ménétries, 1832**

Material examined. PMNH 1720, An Nabi Salih, 5.5.2013. PMNH 3373, Idhna, 23.8.2014. PMNH 3911, Wadi Quff, 21.3.2014.

Remarks. This is rather a common species inhabiting the Mediterranean region, avoiding extreme dry habitats.

***Mesalina guttulata* (Lichtenstein, 1823)** (Fig. 3B)

Material examined. PMNH 5445 – 47, Jericho-An Nuwei'ma, 14.1.2015. PMNH 5475, Ein Fassyil, 14.1.2015. PMNH 5476, Ein Fassyil, 14.1.2015. PMNH 5477, Ein Fassyil, 14.1.2015. PMNH 5522, Jericho Crossing, 12.1.2015, PMNH 5533, Tlal Abu Al A'layek-Jericho, 21.1.2015. PMNH 5757, Bani Na'im, 25.2.2015. PMNH 5840, Wadi Al Qullt, 9.3.2015. PMNH 6916, Wadi Ta'amrah, 3.6.2015. PMNH 7394 – 95, Wadi Ta'amrah, 8.7.2015.

Remarks. This is a common lizard encountered in many localities in the Jordan Valley and the arid parts of the Mediterranean such as Bani Na'im.

Family Typhlopidae
***Xerotyphlops vermicularis* (Merrem, 1820)**

Material examined. PMNH 6997, Wadi Quff, spring 2014. PMNH 7005, Bethlehem, 21.5.2015.

Remarks. Hedges et al. (2014) proposed a new taxonomic framework for the family Typhlopidae based on molecular data. They erected a new genus, *Xerotyphlops*, for blind snakes of the Sahara, Socotra Island, southwestern Asia, and southeastern Europe to replace the genus *Typhlops*. This is a rather common species in Palestine, inhabiting humid areas and avoiding desert habitats (Haas, 1951). A specimen was collected from a house in Bethlehem, while the other was collected from forested humid area undertones.

***Letheobia simonii* (Boettger, 1879)**

Material examined. PMNH 1621, Beit Sahour, 12.9.2012.

Remarks. Hedges et al. (2014) placed Rhinotyphlos *simonii* into the genus *Letheobia* Cope, 1868 based on molecular data. This species was originally described from Haiffa, Palestine (Boettger, 1879). Previously collected from Jericho (Peracca, 1894) and Gaza and Beni Naim (Haas, 1951).

Family Boidae
***Eryx juculus* (Linnaeus, 1758)** (Fig. 4A)

Material examined. PMNH 7006, Qalqiliya, 18.6.2015.

Remarks. Collected previously from between Rafah and Gaza (Flower, 1933), the Jordan Valley (Schmidt, 1939) and around Jerusalem (Haas, 1951). This is a common species in most of the Mediterranean habitats of the West Bank (Bar and Haimovitch, 2012).

Family Colubridae
***Dolichophis jugularis* (Linnaeus, 1758)**

Material examined. PMNH 3835, Idhna12.3.2014. PMNH 7009, Beit Sahour, 14.7.2015. Observed in Bethlehem, Nablus, Ramallah, Jenin, and Salfit.

Remarks. This is a rather common species in the Mediterranean region of the West Bank (Bar and Haimovitch, 2012). It was collected from near Ramallah (Flower, 1933).

Fig. 2. A, *Ablepharus rueppellii*; **B**, *Trachylepis vittata*; **C**, *Chalcides guentheri*; **D**, *Chalcides ocellatus*.

***Chalcides guentheri* Boulenger, 1887** (Fig. 2C)

Material examined. PMNH 1497, Ain Faris, 19.12.2011. Observed in Wadi Fukin in May 2015

Remarks. *Chalcides guentheri* is endemic to the southern Levant region (Werner, 1988; Hraoui-Bloquet et al., 2002; Disi et al., 2001). It was collected from the Mediterranean region which is characterized by high rainfall and a *terra rossa* soil type. It rarely inhabits open areas. It is a secretive species that is seldom seen.

***Chalcides ocellatus* Forskål, 1775** (Fig. 2D)

Material examined. PMNH 1737, At Tayba, 12.4.2013. PMNH 5478, Ein Fassyil, 14.1.2015. PMNH 5479, Ein Fassyil, 14.1.2015. PMNH 5767, Bethlehem, 25.2.2015. PMNH 7309, Wadi Ta'amrah, 21.9.2015. PMNH 7398, Wadi Ta'amrah, 3.6.2015.

Remarks. Tristram (1884) stated that it is common in mountains, dry regions and deep valleys in Palestine. According to Haas (1943), this species is found throughout Palestine in the hills as well as in the coastal plains.

***Trachylepis vittata* (Olivier, 1804)** (Fig. 2B)

Material examined. PMNH 1739, Abu Dis, 22.4.2013. PMNH 4266, Hebron, 2.6.2014. PMNH 4767, Wadi Quff, 1.7.2014. PMNH 7399, Wadi Rahhal, 4.8.2011.

Remarks. The Bridled skink inhabits banks of irrigation canals, bushes and damp soils and humid areas. According to Flower (1933), *T. vittata* is widely distributed in Palestine.

Family Lacertidae

***Phoenicolacerta laevis* (Gray, 1838)** (Fig. 3A)

Material examined. PMNH 3977, Wadi Quff, No Date. PMNH 4265, Wadi Quff-Ein Hassqa, 30.5.2014. PMNH 4607, Al Walaja, 8.8.2014. PMNH 5148, Farkha-Salfit, 22.8.2014. PMNH 7396, Al Walaja, 20.9.2010. PMNH 7397, Bir Zeit, 3.10.2009.

Remarks. This lizard lives in the forested areas of the Mediterranean ecozone, especially areas dominated by oak or pine trees and the upper Jordan valley where it inhabits broken, rocky ground often around *Sarcopoteri-*

Fig. 4. A, *Eryx juculus*; **B**, *Hemorrhois nummifer*; **C**, *Eirenis lineomaculata*; **D**, *Eirenis rothi*; **E**, *Platyceps collaris*; **F**, *Platyceps rhodorachis*; **G**, *Rhyncocalamus melanocephalus*; **H**, *Daboia palaestina*.

***Hemorrhois nummifer* (Reuss, 1834)** (Fig. 4B)

Material examined. PMNH 3834, Idhna, 12.3.2014. PMNH 4074, Hussan, 8.5.2014. PMNH 4349, Beit Sahour, 2013. PMNH 4388, Za'tara, 25.5.2014. PMNH 5755, Za'tara, 23.2.2015. PMNH 6650, Wadi Fukin, 1.6.2015. PMNH 6991, Nablus, 3.2015. PMNH 6992, Salfit, 2.3.2015. PMNH 6993, Nablus, September 2014. PMNH 6999, Beit Sahour, 4.12.2010. PMNH 7007, Beit Sahour, 25.4.2015. Observed in Bethlehem and Hindaza.

Remarks. This is a common species collected from several localities in the West Bank. Haas (1951) stated that this is the commonest species in Jerusalem, with a wide distribution in Palestine, avoiding arid regions. Other older records come from Jerusalem (Barbour, 1914; Flower, 1933) and the Jordan Valley (Schmidt, 1939).

***Eirenis coronelloides* (Jan, 1862)**

Material examined. PMNH 7393, Battir, 5.5.2015.

Remarks. Sivan and Werner (2003) revised the status of *Eirenis corronella* in the Middle East, employing principal coordinate analysis. They recognized two main groups assigned as: *Eirenis coronella*, for specimens from Sinai, Palestine, western Saudi Arabia, Jordan, Iraq, and Syria, and *E. coronelloides*, characterized by dark crown, from Jordan, Iraq, Syria (Amr and Disi, 2011). This species is distributed around the Dead Sea basin extending to the central Jordan Valley and Al Naqab desert (Bar and Haimovitch, 2012).

***Eirenis decemlineatus* (Duméril, Bibron et Duméril, 1854)**

Material examined. PMNH 6654, Battir, 5.5.2015. PMNH 7047, Bethlehem, June 2015. Observed in Al Khader.

Remarks. There are two color forms of this snake in the Middle East; the first one is totally light brown and the second one is with four dark bands extending from the head to tail (Shwayat et al., 2009). It is found in the Mediterranean area and under rocks. Diet of this snake consists of spiders, Acrididae, caterpillars and beetles (Shwayat et al., 2009).

***Eirenis lineomaculata* Schmidt, 1939** (Fig. 4C)

Material examined. PMNH 1742, Ein Fwwar, 10.5.2013. PMNH 4253, Nablus, 2014. PMNH 4264, Battir, 2.6.2014.

Remarks. This species was originally described by Schmidt (1939) from the Palestinian side of the Jordan Valley. *Eirenis lineomaculata* is an endemic species to the Levant (Shwayat et al., 2009; Amr and Disi, 2011). It inhibits the Mediterranean area and was found under stones.

***Eirenis rothi* Jan 1863** (Fig. 4D)

Material examined. PMNH 1738, Nahhalin, 2.5.2013. PMNH 4250, Wadi Quff, 3.5.2014. PMNH 4252, Nablus, 2014. PMNH 4255, Nablus, 23.2.2015. PMNH 5366, Wadi Quff, 4.2014. PMNH 5372, Wadi Quff, 20.4.2014. PMNH 6652, Bethlehem, March 2015. PMNH 7064, June 2015.

Remarks. Eight specimens were collected from various localities across the Mediterranean region of the West Bank. Collected previously from near Jerusalem (Schmidt, 1939). In Jordan, it was found to feed on centipedes (Shwayat et al., 2009).

***Platyceps collaris* (Müller, 1878)** (Fig. 4E)

Material examined. PMNH 6653, Wadi Quff, 2015. PMNH 6989, Wadi Fukin, 29.8.2014. Observed in Bethlehem.

Remarks. This is a rather common species found in the Mediterranean region. Collected from Jerusalem (Barbour, 1914) and Mount Scopus (Schmidt, 1939).

***Platyceps rhodorachis* (Jan, 1865)** (Fig. 4F)

Material examined. PMNH 6990, Za'tara, 1.5.2014. PMNH 7013, Za'tara, 27.5.2015.

Remarks. Both specimens were collected from arid regions to the east of Bethlehem. The cliff racer is a diurnal or crepuscular species that inhabits extremely dry rocky and stony habitats, with a wide distribution extending from North Africa, across Arabia and the Middle East to Afghanistan (Gasperetti, 1988). Recently, this species has been observed in the north eastern coastal plains (Bar and Haimovitch, 2012).

***Malpolon insignitus* (Geoffroy De St-Hilaire, 1809)**

Material examined. PMNH 5892, Za'tara, 17.3.2015. PMNH 6027, Hindaza, 14.3.2015. PMNH 6713, Ayda Camp, 2.6.2015.

Remarks. It inhibits the humid and arid Mediterranean areas. Haas (1951) mentioned a specimen from Jerusalem.

***Natrix tessellata* (Laurenti, 1768)**

Material examined. Observed in Wadi Qana and Suleiman Pool.

Remarks. *Natrix tessellata* is the only fresh water-associated snake that lives in close proximity to permanent water bodies in Palestine. Due to intensive water extraction and divergent of water resources, populations of the snake are declining in the Middle East (Amr et al., 2011).

***Psammophis schokari* (Forskål, 1775)**

Material examined. PMNH 7114, Za'tara, 30.7.2015.

Remarks. Kark et al. (1997) discussed polymorphism among *P. schokari*, and found three pholidotically indistinguishable morphs: striped, non-striped, and rear-striped populations. They attributed such morphs to be correlated to rainfall, solar radiation and vegetation. Boettger (1879) mentioned a specimen from Jerusalem.

***Rhynchocalamus melanocephalus* (Jan, 1862)** (Fig. 4G)

Material examined. PMNH SB10-0111, Nahhalin, 21.9.2010. PMNH 1740, Jubbat Adhdhib, 9.5.2014. PMNH 6651, Beit Sahour, 10.4.2015.

Remarks. Haas (1951) stated that this is a widely distributed species that avoids arid regions. Localities indicated are within the Mediterranean zone with relatively humid environments. Schmidt (1930) reported a specimen collected from Jerusalem.

***Telescopus nigriceps* (Ahl, 1924)**

Material examined. PMNH 6995, Bethlahem, no date.

Remarks. Bar and Haimovitch (2012) considered the population of *Telescopus nigriceps* in Palestine as *Telescopus fallax syriacus*. Disi et al. (2001) considered that T. *nigriceps* population in Jordan has two forms; the true or typical form "*T. nigriceps*" found in flat desert areas at low elevations and the form "*T.* cf. *nigriceps* known from mountainous areas at high elevation. Comparison between *T. nigriceps* and *T. fallax syriacus* was provided by Göçmen et al. (2007). This is a nocturnal snake, feeds on lizards, bird eggs and small mammals (Amr and Disi, 2011).

Family Atractaspididae
***Micrelaps muelleri* Boettger, 1880**

Material examined. PMNH 7004, Jerusalem, 7.10.2013. PMNH 7011, Wadi Al Makhrour, 16.7.2015.

Remarks. Mueller's ground viper was originally described from Jerusalem (Boettger, 1880). This species is restricted to the Mediterranean region and can endure low temperatures (Haas, 1951). Amr et al. (1997) gave an account on *M. muelleri* in Jordan, where it is confined to northern humid part of the country.

***Atractaspis engaddensis* Haas, 1950**

Material examined. PMNH 7343, Jubbat Adhdhib, 18.1.2013.

Remarks. The Ein Gedi mole viper was described by Haas (1950) from Ein Gedi, a locality close to Jubbat Adhdhib. This is a strictly fossorial viper that seldom emerges above ground. It could be encountered in vegetated places in hot and humid areas. In the West Bank, its distribution extends from around the Dead Sea basin and along the arid regions of the Jordan Valley (Bar and Haimovitch, 2012).

Family Viperidae
***Daboia palaestina* (Werner, 1938)** (Fig. 4H)

Material examined. PMNH 7008, Hebron, 5.7.2015.

Remarks. The Palestine viper is associated with forested and cultivated regions of the Mediterranean region of the West Bank. Mendelssohn (1963) recovered rodents, the greater white-toothed shrew, the goldfinch, and reptiles consumed by the Palestine viper. Amr and Disi (1998) recovered remains the house sparrow and the European chameleon from *D. palaestinae* in Jordan. This viper is an excellent climber and is nocturnal though it may bask close to its hiding place in spring (Amr and Disi, 2011).

***Echis coloratus terraesanctae* Babocsay, 2003**

Material examined. PMNH 5893, Deir Hejla, 17.3.2015. PMNH 1474, Mar Saba, 13.8.2011. PMNH 5301, Wadi Jericho, 14.11.2014.

Remarks. All specimens were collected from rocky areas close to the Dead Sea basin. The carpet viper is abundant in the steep, dry rocky hillsides of the mountains which surround the Jordan Valley (Amr and Disi, 2011). It feeds on rodents, lizards, amphibians and arthropods (Mendelssohn, 1965). Babocsay (2003) described this subspecies based on specimens collected around the Dead Sea area and the Jordan Valley. This subspecies differs from *Echis coloratus coloratus* by its fewer ventral scales (187.8 – 190.1 in males and females respectively) and the high number of dorsal scales.

Acknowledgments. We are grateful for field support from Mubarak Zawahra, Majd Salsaa', Mohammed Abu Sarhan, Mohammed Al-Qurna, Mohammed Al-Rady, Mohammed Najajrah, ShadiAdwan, and Jessie Chang.

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