

The herpetofauna of Simi (Dodecanese, Greece)

(Amphibia, Reptilia)

Die Herpetofauna der Insel Simi (Dodekanes, Griechenland)
(Amphibia, Reptilia)

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KURZFASSUNG

Die Herpetofauna der Dodekanes-Insel Simi und des Nachbarinsels Sesklia wurde auf Grundlage von Beobachtungen des Erstautors sowie anderer Herpetologen, Literaturziten und einer kleinen Belegsammlung des Naturhistorischen Museums in Wien zusammenfassend dargestellt. Nach der Literatur waren bisher 13 Reptilienarten und eine Amphibienart für die Insel nachgewiesen. In der vorliegenden Arbeit konnte die Europäische Katzennatter *Telescopus fallax* (FLEISCHMANN, 1831) der Artenliste der Insel hinzugefügt und das Vorkommen der seltenen Goldstreifenmabuye *Trachylepis aurata* (LINNAEUS, 1758) bestätigt werden. Eine vergleichende herpetologische Artenliste von Simi, Rhodes, Tilos, Khalki, Nissiros und des türkischen Festlandes wird vorgelegt.

ABSTRACT

Information about the herpetofauna of the Dodecanese Island of Simi and the neighboring Islet of Sesklia was summarized based on recent herpetological trips by the first author and other herpetologists, as well as literature data and a small collection of specimens from the Natural History Museum in Vienna. From the literature, thirteen reptile species and a single amphibian species were known to occur on the island. In the present paper the European Cat Snake *Telescopus fallax* (FLEISCHMANN, 1831), may be added to the species list of Simi, and the presence of the rare Levant Skink *Trachylepis aurata* (LINNAEUS, 1758) was confirmed. A comparative herpetofaunal species list of the islands of Simi, Rhodes, Tilos, Khalki, Nissiros and the Turkish mainland was provided.

KEY WORDS

Amphibia, Reptilia, herpetofauna, Simi (Symi) Island, Sesklia Islet, Dodecanese, Greece, species abundance, *Bufo viridis*, *Bufo variabilis*, *Trachylepis aurata*, *Telescopus fallax* - new island record, *Hemorrhhois nummifer*, *Montivipera xanthina*

INTRODUCTION

Despite the considerable amounts of herpetological research conducted on neighboring Rhodes, most of the smaller islands in the Dodecanese group (Agathonissi, Arki, Lipsi, Farmakonissi, Kalolimnos, Pserimos, Giali, Nissiros, Tilos, Simi, Chalki) were less well documented, certainly with regard to their herpetofaunas. This paper presents the entire known herpetofauna of the small island of Simi, and it is hoped that it will trigger future investigations of the herpetofauna of Simi and the neighboring islet of Sesklia. From the literature thirteen reptile species and a single amphibian species were known to occur on the island of Simi: *Bufo viridis* [*B. variabilis*], *Testudo graeca*, *Blanus strauchi*, *Hemidactylus turcicus*, *Cyrtopodion kotschy*, *Laudakia stellio*, *Anatololacerta oertzeni*, *Ophisops elegans*, *Ablepharus kitaibelii*, *Trachylepis aurata*, *Dolichophis jugularis*, *Eirenis modestus*, *Hemor-*

rhois nummifer and *Montivipera xanthina*. However, only two authors reported detailed record localities. Unlike the larger Dodecanese islands (Rhodes and Kos), Simi has escaped mass development for the tourist industry, its small size, and steep limestone landscape severely limiting the construction of large hotel complexes. Although in recent years the island has become more popular, tourism has only expanded through the construction of villas and apartments. In 2005, the island had a population of around 2,500 inhabitants.

Simi with a surface area of 58 km² is located 25 km north of Rhodes and just 5 km from mainland Turkey (Fig. 1). The highest point is Mount Vigla (616 m a.s.l.). The island is predominantly composed of limestone, presenting a rocky, and very barren appearance, and due to the nature of the terrain, few areas can be used for cultiva-



Fig. 1: Map of the Dodekanese Island of Simi. The marked locations represent areas where herpetological observations or collections were made.

Abb. 1: Karte der Dodekanes-Insel Simi. Die eingetragenen Fundorte markieren die Stellen herpetologischer Beobachtungen und Aufsammlungen.

Figs. 2-3 (opposite page), Photos: Matt Wilson. / Abb. 2-3 (gegenüberliegende Seite), Photos: Matt Wilson.

Fig. 2: Pedi valley, Simi, habitat of *T. graeca*, *B. strauchi*, *H. turcicus*, *C. kotschy*, *L. stellio*, *A. oertzeni*, *O. elegans*, *T. aurata*, *D. jugularis*, *E. modestus*, and *M. xanthina*.

Abb. 2: Das Tal Pedi auf der Insel Simi, Lebensraum von *T. graeca*, *B. strauchi*, *H. turcicus*, *C. kotschy*, *L. stellio*, *A. oertzeni*, *O. elegans*, *T. aurata*, *D. jugularis*, *E. modestus*, und *M. xanthina*.

Fig. 3: A dry ravine in the north of the Pedi valley, Simi, habitat of *H. turcicus*, *C. kotschy*, *L. stellio*, *A. oertzeni*, *A. kitaibelii*, *D. jugularis*, and *H. nummifer* and location where *T. fallax* was found by N. SHUM (pers. comm.).

Abb. 3: Ein trockener Hohlweg im Norden des Pedi Tales auf Simi, Lebensraum von *H. turcicus*, *C. kotschy*, *L. stellio*, *A. oertzeni*, *O. elegans*, *A. kitaibelii*, *D. jugularis*, und *H. nummifer* sowie Fundort von *T. fallax* (N. SHUM pers. Mitt.).



tion or horticultural purposes. Three fairly fertile valleys can be found on the island at Pedi (Figs. 2, 3), Drakounda and Agios Vassilios. The Pedi valley area predominantly consists of wheat fields, while some olive groves and fruit orchards can be found close to farmland areas, whilst at Agios Vassilios vineyards were also present. The viper area of the valley is dominated by phrygana and other plant cover such as *Euphorbia dendroides*, as well as *Origanum*

heracleoticum, *Dracunculus vulgaris*, and *Arum dioscoridis*. Some woodland areas in the remoter regions of Simi consist of *Cupressus sempervirens*, while further inland dense stands of *Pinus brutia* can be found. There are no natural fresh water sources present, but artificial cisterns are located in cultivated areas. The islet of Sesklia, with a surface area of 1.5 km², is a property of the Panormitis monastery and is located just south of Simi.

MATERIALS AND METHODS

Early herpetological references for the island can be found in BOETTGER (1888), as well as WERNER (1930, 1933, 1935, 1938), WETTSTEIN (1953) and PIEPER (1970). Only lizards were known from the herpetofauna of Simi until the visit by CLARK (1972), who contributed several important records. In more recent papers, both BUTTLE (1995b) and BROGGI (2002) documented a further new species. The latter author who quoted five species new to Sesklia and CATTANEO (2007) who added comprehensive information on the snake fauna of Simi were, however, the only to give specific locality data concerning individuals. In addition to the literature a small collection of specimens from Simi at the Natural History Museum in Vienna (NHMW) was considered in the species accounts. Furthermore, other naturalists who visited Simi in recent years (dates in parentheses) contributed with their personal observations such as the members of the Belgian group HYLA (4-15.10.2007), of which three were contacted – J. VAN DER VOORT (Schoten), P. ENGELEN (Gent) and J. SPEYBROECK (Gent). Their observations are referenced as SPEYBROECK et al. (pers. comm.). Observations from another trip un-

dertaken by F. PAYSANT (Le Châtellier) (13-19.4.2002) are referred to as PAYSANT (pers. comm.), and some additional records by N. SHUM (Simi) as SHUM (pers. comm.).

In addition to what was already known about the herpetofauna of Simi, this paper will document and describe the findings during four stays made by the first author on the island in July (6-11) 2006, April/May (18-2) 2007, August (15-22) 2007, and August (10-18) 2008. Weather conditions during the April/May excursion were favorable (24°C-29°C) which allowed for searches to be conducted throughout the day, and most reptile species could be observed at any time of day during this period. The summer visits were far less successful with very hot weather, and due to extremely high temperatures (35°C-42°C) and therefore searches were only undertaken in the very early morning, late evenings and the first few hours after nightfall. Due to the lack of locality data in the reports of previous authors, this author was unable to visit specific locations and tended to search widely across the entire island. Furthermore, several hours were spent on the islet of Sesklia. On some occasions the length of snakes was measured.

SPECIES ACCOUNTS

Bufo viridis (LAURENTI, 1768)
[*Bufo variabilis* (PALLAS, 1769)]

The Green Toad is the only amphibian known to inhabit Simi, and considering the almost complete absence of naturally occurring freshwater, even its presence is surpris-

ing. BUTTLE (1995b) predicted the occurrence of the species on Simi and this was later confirmed by BROGGI (2002) who observed tadpoles of the species and CATTANEO (2007) who found five adults. PAYSANT (pers. comm.) found eight road-killed specimens in the southern part of the Pedi Valley

in April 2002. The only sources of permanent fresh water appeared to be the artificial waters cisterns and reserves in remote areas of the island. However, since the walls of these cisterns are approximately three to four metres high from the ground, they appear inaccessible to the toads. Therefore, it was supposed that the species utilized temporary winter rain pools for reproduction. No adult specimens or tadpoles were found in or around these cisterns, but by contrast large numbers of adults were located in the Pedi Bay near to a sparsely vegetated area which contained a small well. The latter was home to tadpoles and would appear to hold water for at least most of the year, but was less than a meter in width. During the April visit the first author found around a dozen road-killed adult toads on the main road leading to the bay, in close proximity to this well, which indicates it is thoroughly used by the species. A further adult toad was found on the country road above Pedi after nightfall. No toads could be seen during any of the summer trips to Simi.

Testudo graeca iberica
PALLAS, 1814

The first record of Spur-thighed Tortoise on Simi was a single specimen found by CLARK (1972), and the species has subsequently been recorded by BUTTLE (1995b), BROGGI (2002) and CATTANEO (2007). BROGGI found it south of the Panormitis monastery near Troulos, in a pine forested area, as well as near Pervola and in the phrygana at Kato, CATTANEO observed 80 specimens. During the April visit the tortoise was found to be very common throughout the entire island by the first author, especially in the Pedi Valley, Chorio, Panagia Strateri, Ag. Konstantinos, Ag. Vasilos, and also at the southern most point of island at Panormitis. In April, specimens were found active throughout the day, from small juveniles of around 6-8 cm to very large adults with a carapace length of up to 30 cm. This tortoise was also found frequently near human habitation, where it seemed to be a regular garden visitor, and more individuals were located on agricultural land and fields as opposed to more natural, forested habitats like those near Pan-

ormitis. A total of 15 adults and 4 juveniles were found during the April visit, whereas only 3 could be located in July and August. During the summer usually tortoises were found active in the late evening towards dusk, including one on the high plateau of Kokkimidis. In addition, PAYSANT (pers. comm.) found eleven females and four males near Marathounda beach hiding under basal leaves of *Asphodelus albus* and *Urginea maritima*, on 18 April 2002.

Blanus strauchi strauchi
(BEDRIAGA, 1884)

The subterranean Anatolian Worm Lizard appears to be a common species on Simi where it was first discovered by BUTTLE (1995b), however, the eight specimens found were without further locality details. Four examples were also found by PAYSANT (pers. comm.), and BROGGI (2002) found a specimen on Sesklia islet. During the April visit seven specimens were found beneath stones, including a male and a female together, the female appearing gravid. During the summer visits it was more elusive, and usually the only sign of its presence was in skin sloughs found under stones or fallen timber. All specimens measured approximately 0.15-20 m. All specimens located by the author were found in the upper and lower areas of the Pedi valley.

Hemidactylus turcicus turcicus
(LINNAEUS, 1758)

The Turkish Gecko on Simi was previously mentioned in the literature by BOETTGER (1888), WERNER (1933, 1935), WETTSTEIN (1953), CLARK (1972), BUTTLE (1995b), and CATTANEO (2007). The first author found this species to be quite common during the April visit when 10-12 specimens could be observed each evening around human habitation in the northern part of the Pedi valley. During the summer visits the Turkish Gecko was scarce, and only the occasional specimen could be found in the same areas in which it was abundant in the spring. Unlike *Cyrtopodion kotschy* it was never observed during the daytime, apart from the specimen being consumed by *Anatololacerta oertzeni*.



Cyrtopodion kotschyi beutleri
(STRAUCH, 1887)

The presence of the Mediterranean Bent-toed Gecko on Simi was reported by BOETTGER (1888), WERNER (1933, 1935), WETTSTEIN (1953), BUTTLE (1995b), BROGGI (2002), and CATTANEO (2007). Although well known previously from Simi, only a few examples have been found on the island. A voucher collected by PAGET, KRITSCHER and BILEK is deposited under NHMW 30616. The first author found the species to be relatively abundant, especially during the April visit when an average of 2-4 could be seen each day basking on dry stone walls, with a further 2-5 observed each evening (Fig. 4). During the summer visits it could only be observed at night. During a search of one and a half to two hours after nightfall, seven specimens could be seen in open, rocky terrain on the steep hillside above the Pedi Valley and at the ruins at Drakos. It was very rarely seen around human habitation on Simi. BROGGI (2002) found a specimen under a piece of fallen timber at Pontikastro above the town of Chorio.

Laudakia stellio daani
(BEUTLER & FRÖR, 1980)

The Starred Agama is well known in literature and references to its presence on Simi can be found as early as BOETTGER (1888), as well as WERNER (1930, 1933, 1935), WETTSTEIN (1953) and more recently CLARK (1972), BUTTLE (1995b), BROGGI (2002), and CATTANEO (2007). A voucher collected by PAGET, KRITSCHER and BILEK was deposited under NHMW 33040. This is a very common species on Simi and other

islands in the Dodecanese archipelago. Adult specimens were far more abundant during the April 2007 visit, but during summer visits juveniles were more in evidence. *Laudakia stellio daani* was common on dry stone walls and even on bare rocks in the phrygana away from cultivated land. Adults exhibited considerable color variation being usually light grey, but sometimes with blue specks, or almost completely black. Even on very hot days during the August visit this species could be found sunning, although generally it was far less abundant than in spring time. On average, during the April visit 15-25 specimens could be observed per hour, and by comparison its abundance in the summer visits decreased considerably to between 1-8 specimens per hour of searching. The specimens located by the first author were found in the Pedi valley. BROGGI (2002) also recorded this species from the islet of Sesklia, where this author also found it to be abundant, but more terrestrial than on larger islands.

Anatololacerta oertzeni pelasgiana
(MERTENS, 1959)

This species on Simi has been previously mentioned by BOETTGER (1888), WERNER (1930, 1933, 1935, 1938), WETTSTEIN (1953), PIEPER (1970), CLARK (1972), BUTTLE (1995b), BROGGI (2002), and CATTANEO (2007). There are NHMW vouchers collected by RECHINGER (NHMW 11599), BILEK (NHMW 20556), and PAGET, KRITSCHER and BILEK (NHMW 26763). During the spring visit it was especially abundant, with between 10-15 specimens seen per hour. In high summer, adults were rather secretive, and would be active mostly in the evenings

Figs. 4-7 (opposite page), Photos: Matt Wilson. / Abb. 4-7 (gegenüberliegende Seite), Photos: Matt Wilson.

Fig. 4: Adult specimen of *Cyrtopodion kotschyi* from Pedi, Simi.

Abb. 4: Adultes Exemplar von *Cyrtopodion kotschyi* aus Pedi, Simi.

Fig. 5: Specimen of *Trachylepis aurata* from Pedi, Simi.

Abb. 5: *Trachylepis aurata* aus Pedi, Simi.

Fig. 6: A young specimen of *Dolichophis jugularis*, from Pedi, Simi.

Abb. 6: Jungtier von *Dolichophis jugularis* aus Pedi, Simi.

Fig. 7: Adult *Hemorrhois nummifer* from Pedi, Simi, showing gray dorsum and faded bar markings.

Abb. 7: Adultes Exemplar von *Hemorrhois nummifer* aus Pedi, Simi, mit verblassender Barrenzeichnung auf grauem Rücken.

and early mornings where only one or two could be observed for each hour of searching. The blue tailed juveniles however, would actively hunt throughout the hottest parts of the day and the first author was able to observe 5-8 specimens per hour. One adult was seen predated a *Hemidactylus turcicus*. The species, already mentioned from Sesklia by BROGGI (2002), was also found there by the first author. Specimens could be found throughout the island, at Pedi, Kokkimidis, Chorio, Gialos, Ag. Konstantinos, Panormitis as well at the secluded bay of Ag. Nikolaos.

Ophisops elegans macrodactylus
(BERTHOLD, 1842)

The Snake-eyed Lizard was mentioned from Simi by BOETTGER (1888), WERNER (1933, 1935), WETTSTEIN (1953), CLARK (1972), BUTTLE (1995b), BROGGI (2002), and CATTANEO (2007). There are NHMW vouchers collected by RECHINGER (NHMW 11921), BILEK (NHMW 20559), and PAGET, KRITSCHER and BILEK (NHMW 32676). *Ophisops* is very common on Simi, during the April visit it could be found in high densities, and between 15-20 could be observed per hour of searching, usually in sparsely vegetated areas such as Pedi, but also in hilly country near to Kokkimidis in the phrygana. During the summer visits its abundance decreased only marginally. This lizard was especially able to tolerate high temperatures, and on summer days when temperatures would exceed 40°C, adults and especially juveniles, would remain highly active in exposed areas. Most record localities were in the Pedi valley as well as some of the dry, open hillsides above the town of Chorio and at Drakounda.

Ablepharus kitaibelii kitaibelii
(BIBRON & BORY, 1833)

The Snake-eyed Skink was mentioned from Simi by BOETTGER (1888), WERNER (1933, 1935), WETTSTEIN (1953), CLARK (1972), BUTTLE (1995b), BROGGI (2002), and CATTANEO (2007). The first author found this species chiefly during the summer visits. In April, it was only observed once on the edge of a terraced field in the

Pedi valley after a brief rain shower. In spring, the skink may be active during the afternoon hours, and during the summer visits only a further three specimens were observed at dusk, again in the Pedi Valley. The Snake-eyed Skink was found in pine leaf litter at the most southern point of the island at Panormitis by BROGGI (2002).

Trachylepis aurata aurata
(LINNAEUS, 1758)

The Levant Skink has only been referenced on Simi by CLARK (1972, 1992) who found three specimens, and and CATTANEO (2007). In 2002 PAYSANT (pers. comm.) observed a further specimen in the Pedi Valley. Two adult Levant Skinks were found during the August 2007 visit by the first author, and a further specimen was observed in August 2008 (Fig. 5). All three skinks were found active just before dusk on old stone walls bordering fields at the same locality in the Pedi Valley, and all re-emerging from cover soon after being disturbed. No specimens were found during the April visit. This species appeared uncommon and may occur localized on the island.

Dolichophis jugularis
(LINNAEUS, 1758)

The Black Whip Snake was the most commonly encountered snake species from Simi. It was first observed by CLARK (1972), has since been found by BUTTLE (1995b), BROGGI (2002), and was studied by CATTANEO (2007) who described the morphology of four individuals (maximum total length 178 cm) and their habitat. He found the snakes to resemble strongly their red-bellied congeners on Rhodes. Specimens were seen during every visit of the first author to the island, although encounters with this snake were far more frequent during the spring visit. Specimens were found at a path edge near to the heliport at Drakounda, where a large specimen of approximately 1.60 m length was seen disappearing into a pile of rubbish on a very hot July afternoon. A sub-adult was also captured there at the road side, this specimen measured 0.95 m. A very large specimen of around 1.70 m with a mid body diameter of 6 cm was observed by SHUM

(pers. comm.) in 2008 on the edge of a concrete track in the same area. Further, large adults were seen in the Pedi Valley, mostly near ruined houses and old walls. Even on hot summer evenings this snake could be observed hunting, including a black adult of 1.10 m in the southern Pedi Bay found on a stone wall at 18:15. Many juveniles were also found, including a small specimen which entered the first author's accommodation, and two more seen basking on stone walls. In addition, a further juvenile was caught near the village of Chorio above the harbor (Fig. 6). Large snake sloughs of 1.50-1.70 m were also located, as well as three road-killed specimens, of 0.85 m, and 0.50 m on the northern Pedi Valley road as well as a larger specimen of 1.70 m on the other side of the main town at Drakounda. BROGGI (2002) reported a specimen near Chandos on the high plain of Simi, near to cultivated land. It should be stated that the 0.95 m caught snake and the road kill of 0.85 m exhibited a brown color with red spotted ventral scales, with a yellow ground color on the underside, like that of the juvenile snakes found, and completely different to the more normal black colored adult specimens. This could indicate that the juveniles retain their coloration longer than expected. WETTSTEIN (1953) described two morphs of this taxon from nearby Rhodes, the typical black form (males) and a brighter brown form (females) that keep this appearance to a size of 1.5 m. It seems likely that this description from Rhodes could also apply to Simi.

Eirenis modestus semimaculatus
(BOETTGER, 1876)

The first records of the Dwarf Snake on Simi came from CLARK (1972), who found two specimens, one of which was in Simi Town (Gialos). Individual specimens were also found by BUTTLE (1995b), BROGGI (2002), who as well reported a specimen from Sesklia islet at Apostolos Paulos. CATTANEO (2007) described four specimens in more detail, the longest measuring 55 cm. A voucher specimen from Simi collected by PAGET, BILEK, and KRITSCHER was deposited (NHMW 31874). Although probably not a rare species on the island due to its secretive behavior, it is rarely encountered and the

first author has only seen a single specimen, during the four visits to Simi. This specimen, from the southern Pedi Bay area was found during the dry summer visit; it had been killed by local people in the street. The Dwarf Snake appeared to be a gravid female, and was of light brown color with a cream colored underside and neck, it measured 0.50 m with a mid body girth of around 30 mm. The collar marking of juveniles and some adults was absent. In addition, two snake sloughs were found in the Pedi valley, one of which was on the edge of cultivated land, on a stone wall about 2.0 m off the ground, indicating that the species does occasionally climb. The other was in a dry ravine. A 0.50 m specimen was found at Ag. Dimitri Lakkos by BROGGI (2002) on the edge of a path. Two specimens were also recorded in the Pedi Valley by SPEYBROECK et al. (pers. comm.) in October 2007, one of which found by VAN DER VOORT (pers. comm.) under a stone, showed an accumulation of spots along the dorsum, in contrast to the plain adult female found by the first author.

Hemorrhois nummifer
(REUSS, 1834)

The Coin-marked Snake was first reported from Simi by CLARK (1972) who found two large sized specimens of 1.44 m and 1.52 m, but did not mention specific localities. CLARK's (1972) specimens were grey with larger dark grey cross bars on the dorsum. A third specimen was found by BUTTLE (1995b) that was more typically blotched similar to those from Rhodes, and a further dead specimen was found by BROGGI (2002) on the Gialos country road. CATTANEO (2007) observed 13 specimens and reported on length, mass and pholidosis data of six (maximum total length 161.5 cm), including the prey items found in their alimentary tract (*Laudakia*, *Rattus*, *Apodemus*, *Turdus*). Colorpattern and biology of this population were described. *Hemorrhois nummifer* appears to be a relatively common snake on Simi. On a recent excursion to the island SPEYBROECK et al. (pers. comm.) found several juvenile specimens and two adult snakes in the Pedi Valley and at Drakounda, as well as a dead juvenile on the road lead-



ing to Panormitis in the south. During the first author's April visit a large example of 1.5 m was captured in a dry ravine (Fig. 3), in the northern part of the Pedi Valley. Like an adult Coin-marked Snake reported by CLARK (1972), this specimen regurgitated a large rat when captured. This snake was of grey coloration with faded markings, the pattern that appears to be typical of adult Simi specimens (Fig. 7), unlike those from nearby Rhodes (Fig. 8). Most of the faded pattern also consisted of cross bars like those reported by CLARK (1972) and unlike the typical, and seemingly less common, blotched adult specimen, found by BUTTLE (1995b). As mentioned by CLARK (1972), BUTTLE (1995b), and CATTANEO (2007), this snake exhibits an extreme degree of color-pattern polymorphism. In August 2008, a recently injured adult of 1.45 m was found on a road above Pedi at approximately 23:00, but it died shortly afterwards. This snake had brown blotched markings on the dorsum that in some areas were developing into cross bars (Fig. 9). A further adult of similar size was seen hunting on a stone wall in the late evening. The snake was observed inserting its head into crevices as it searched for prey. During a summer visit several juvenile specimens were found which bore a striking resemblance to *Montivipera xanthina* (GRAY, 1849). The first author estimates this snake could easily achieve 1.70-1.80 m in length, VALAKOS et al. (2008) mentioned it may even reach 2.0

m. It is also quite slow moving, and more similar to a species from the genus *Elaphe* in terms of behavior, as mentioned previously by CLARK (1972), its movements were leisurely and showed little inclination to escape, but when caught, all specimens would turn and bite deliberately. According to SHUM (pers. comm.), it is regularly found in and around agricultural buildings and even inside human habitations.

Telescopus fallax
(FLEISCHMANN, 1831)

The European Cat Snake known from various Dodecanese islands had not previously been recorded from Simi. A specimen from the northern parts of the Pedi Valley would appear to be a new record by SHUM (pers. comm.). The specimen in question was being molested by cats near to the author's farm accommodation. It was identified from a photograph taken by SHUM (25-2-07). Another specimen was found in autumn (05-10-07) at the same locality by SPEYBROECK et al. (pers. comm.). Extensive nocturnal searches during the August 2008 visit of the first author, revealed a recently killed 0.48 m specimen (17-08-08) (Fig. 10). The subspecies *rhodicus* WETTSTEIN, 1952 described from the island of Rhodes was not generally recognized (see BADER et al 2008). Nonetheless, the Cat Snake taxon of Simi is likely to be identical with the form living on that island.

Figs. 8-11 (opposite page) / Abb. 8-11 (gegenüberliegende Seite)

Fig. 8: A typically blotched, more vividly colored specimen of *Hemorrhois nummifer* from Rhodes. Photo: Thomas Bader (Vienna).

Abb. 8: Typisch geflecktes, lebhaft gefärbtes Exemplar von *Hemorrhois nummifer* von Rhodos. Photo: Thomas Bader (Wien).

Fig. 9: A recently killed specimen of *Hemorrhois nummifer* from Chorio, Simi. Observe the brown spots which are fading into the cross bar pattern. Photo: Matt Wilson.

Abb. 9: Ein kürzlich getötetes Exemplar von *Hemorrhois nummifer* aus Chorio, Simi. Man beachte, daß die braunen Flecke in eine Barrenzeichnung übergehen. Photo: Matt Wilson.

Fig. 10: A recently killed specimen of *Telescopus fallax* from north Pedi, Simi. Photo: Matt Wilson.
Abb. 10: Ein kürzlich getötetes Exemplar von *Telescopus fallax* von nördlich Pedi, Simi. Photo: Matt Wilson.

Fig. 11: A typical adult male specimen of *Montivipera xanthina* from Pedi, Simi. Photo: Franck Paysant (Le Châtelier).

Abb. 11: Typisch gefärbtes adultes Männchen von *Montivipera xanthina* aus Pedi, Simi. Photo: Franck Paysant (Le Châtelier).

Table 1: One species of amphibian and 14 of reptiles are currently known to constitute the herpetofauna of the Dodecanese island of Simi. The taxa were ranked by their apparent abundance based on the number of records found in literature, as well as the first author's findings, museum specimens, and unpublished records by others.

Tab. 1: Nach gegenwärtigem Wissen umfaßt die Herpetofauna der Dodekanesinsel Simi eine Amphibienart und 14 Reptilienarten. Die Reihung der Taxa erfolgte absteigend nach der zahlenmäßigen Häufigkeit ihrer Nachweise (Literatur, Beobachtungen des Erstautors, Museumsexemplare und unpublizierte Beobachtungen Dritter).

Taxon	Number of Records Anzahl Nachweise
<i>Laudakia stellio</i>	> 100
<i>Anatololacerta oertzeni</i>	> 100
<i>Ophisops elegans</i>	> 100
<i>Hemidactylus turcicus</i>	> 100
<i>Cyrtopodion kotschy</i>	> 100
<i>Testudo graeca</i>	83
<i>Dolichophis jugularis</i>	51
<i>Montivipera xanthina</i>	40
<i>Bufo viridis</i>	28
<i>Hemorrhois nummifer</i>	23
<i>Blanus strauchi</i>	21
<i>Ablepharus kitaibelii</i>	16
<i>Eirenis modestus</i>	13
<i>Trachylepis aurata</i>	8
<i>Telescopus fallax</i>	3

Montivipera xanthina
(GRAY, 1849)

The Ottoman Viper was first recorded from Simi by CLARK (1972), later by BUTTLE (1995b), and BROGGI (2002) but only single specimens were observed, indicating that it may be uncommon. CATTANEO (2007), however, reported length (maximum total length 92 cm) and mass data of 24 individuals as well as pholidosis data of six vipers. It was most frequently encountered in the Pedi Bay area, near to fields bordered with old stone

walls and ruins. In this area during the first author's April visit, one adult male and one adult female were found on separate days moving along a small trail at the base of a stone wall (Fig. 2). The adult specimens were large, the male approximately 0.80 m and the female slightly smaller at around 0.75 m the male having a silver/gray dorsum with black elongated patches sometimes forming a zigzag pattern, like those reported by CLARK (1972) and BUTTLE (1995b). The female had a light gray ground color with sexually induced dichromatic brown patterning. Contrary to previous reports, these adult specimens were very quick to retreat and moved surprisingly swiftly, for a large, thick-bodied viper. Two more snake sloughs were found in the same area by SPEYBROECK et al. (pers. comm.) in October 2007; ENGELEN (pers. comm.) confirmed the location of the snake sloughs as the same previously mentioned locality. In contrast to previous reports highlighting the scarcity of vipers in this area, PAYSANT (pers. comm.) in April 2002 found four male Ottoman Vipers (0.54 m – 0.75 m), in the same area of terraced fields as to where the first author found the two adult vipers (Figs. 2, 11) and CATTANEO (2007) reported on 30 individuals. In addition, BROGGI (2002) was able to observe an Ottoman Viper of approximately one meter in length on a concrete path on the Kokkimidis high plain. Activity in April seemed to last throughout the day, and a freshly killed specimen was also found by the author at midday on a more remote part of the island at Ag. Vassilos, it measured 0.45 m. This was the only species of snake the author was unable to find during any of the summer trips, even nocturnal searches were in vain.

DISCUSSION

Despite its small size, and preponderance of arid habitats, Simi exhibits an interesting and fairly diverse herpetofauna. The most common species include *Laudakia stellio*, *Anatololacerta oertzeni*, *Ophisops elegans*, *Hemidactylus turcicus*, *Cyrtopodion kotschy*, while others such as *Testudo graeca*, *Dolichophis jugularis*, *Montivipera*

xanthina, *Bufo viridis*, *Hemorrhois nummifer*, *Blanus strauchi* and *Ablepharus kitaibelii* still seem to be abundant, with suitable conditions. Based on the first author's experience and that of others, the three least frequently encountered (or even rare) species include *Telescopus fallax*, *Eirenis modestus*, and *Trachylepis aurata* (Table 1).

Table 2: The herpetological species present on Simi in comparison with those found on the nearby islands of Rhodes, Khalki, Tilos, Nissiros and the adjacent mainland of Turkey based on the works by BOETTGER (1888), WERNER (1930, 1933, 1935, 1938), WETTSTEIN (1953), PIEPER (1970), CLARK (1972), CHONDROPOULOS (1986, 1989), BUTTLE (1995b), BROGGI (2002, 2006), CATTANEO (2006, 2009), FRANZEN et al. (2008), BADER et al. (2009), and WILSON (unpubl.). Marine and soft-shelled turtles were not included; doubtful or released species in parentheses.

Tab. 2: Vergleichende Zusammenstellung der Amphibien- und Reptilienarten der Insel Simi und der Nachbarinseln Rhodos, Tilos, Khalki, Nissiros sowie des nahen türkischen Festlandes auf Grundlage der Arbeiten von BOETTGER (1888), WERNER (1930, 1933, 1935, 1938), WETTSTEIN (1953), PIEPER (1970), CLARK (1972), CHONDROPOULOS (1986, 1989), BUTTLE (1995b), BROGGI (2002, 2006), CATTANEO (2006, 2009), FRANZEN et al. (2008), BADER et al. (2009) und WILSON (unpubliziert). Meeres- und Weichschildkröten wurden nicht berücksichtigt; zweifelhafte Vorkommen und Aussetzungen in Klammern.

Taxon	Simi	Rhodes	Khalki	Tilos	Nissiros	Turkish Mainland
<i>Lyciasalamandra fazilae</i>						+
<i>Lyciasalamandra flavimembris</i>						+
<i>Lyciasalamandra luschani</i>						+
<i>Bufo bufo</i>						+
<i>Bufo viridis</i> [<i>B. variabilis</i>]	+	+		+		+
<i>Pelobates syriacus</i>						+
<i>Hyla arborea</i>		+				+
<i>Pelophylax cerigensis</i>		+		+		
<i>Pelophylax ridibundus</i>						+
<i>Testudo graeca</i>	+					+
<i>Testudo hermanni</i>		(+)				
<i>Emys orbicularis</i>						+
<i>Mauremys rivulata</i>		+		+		+
<i>Blanus strauchi</i>	+	+			+	+
<i>Laudakia stellio</i>	+	+	+	+	+	+
<i>Pseudopus apodus</i>						+
<i>Chamaeleo chamaeleon</i>		+				+
<i>Cyrtopodion kotschyi</i>	+	+	+	+	+	+
<i>Hemidactylus turcicus</i>	+	+	+	+	+	+
<i>Anatololacerta oertzeni</i>	+	+		+	+	+
<i>Lacerta trilineata</i>		+				+
<i>Ophisops elegans</i>	+	+		+	+	+
<i>Ablepharus kitaibelii</i>	+	+	+	+	+	+
<i>Chalcides ocellatus</i>		+			+	+
<i>Trachylepis aurata</i>	+	+				+
<i>Typhlops vermicularis</i>		+				+
<i>Eryx jaculus</i>						+
<i>Dolichophis caspius</i>		+			+	+
<i>Dolichophis jugularis</i>	+	+	+	+	+	+
<i>Hemorrhois nummifer</i>	+	+			+	+
<i>Platyceps collaris</i>						+
<i>Platyceps najadum</i>		+			+	+
<i>Eirenis modestus</i>	+					+
<i>Elaphe sauromates</i>						+
<i>Zamenis situla</i>		+				+
<i>Telescopus fallax</i>	+	+		+		+
<i>Malpolon insignitus</i>		+				+
<i>Natrix natrix</i>		+				+
<i>Natrix tessellata</i>		(+)				+
<i>Montivipera xanthina</i>	+		+	+		+

In particular, the island's cultivated valleys (Pedi, Drakounda) are species-rich. These areas contain numerous terraced fields with stone walls, and shade-providing trees that are generally lacking in more natural parts of the island. The Ottoman Viper in particular is a cause for concern, due to the fact that it is heavily persecuted, al-

though the 2002 trip by PAYSANT (pers. comm.) and the high numbers in CATTANEO (2007) give more reason for optimism. In the Pedi Valley the author spoke with several local farmers who stated that they kill vipers whenever possible. Some were able to list how many they have killed in a particular year, such as three specimens in one

month. It is likely that *Hemorrhois nummifer* is also killed in the mistaken belief it is an Ottoman Viper. There is also a very common concept on the island (and other parts of the Dodecanese) that only *Dolichophis jugularis* eat troublesome rodents, and therefore it is the only snake species tolerated by the locals, but of course other species also include rodents in their diet such as *H. nummifer* and *M. xanthina*.

Worth noting, is the activity of a local man, a well known snake catcher, who has in recent decades collected many *Montivipera* specimens from Pedi, for financial gain. The removal of many adult snakes from such a small area would lower the densities of the current population. In addition, the presence of feral cats on the island seems to limit species abundance in the more inhabited areas of Simi, such as the main towns of Gialos and Chorio where cats predate on toads, lizards and small snakes. Overgrazing by goats on the island could also have had a very negative impact on the herpetofauna, as it has reduced the volume of vegetation cover of the phrygana in many areas. In recent year the process of road construction to facilitate access to various remote regions of the island, displacing dirt tracks with cemented roads, has increased

traffic flow and could also have increased the rate of species mortality (SHUM pers. comm.). This differs from the times of earlier reports (BOETTGER 1888 through BUTTLE 1995b) when only small, dirt roads were present and no road killed specimens could be found. In recent years, the road leading to the southern Pedi Bay area is reported by SHUM (pers. comm.) as having the largest concentration of annual snake fatalities.

Five species (*L. stellio*, *O. elegans*, *A. oertzeni*, *B. strauchi* and *E. modestus*) are known from the neighboring islet of Sesklia through BROGGI (2002), who also mentions the high probability of the occurrence of *Dolichophis jugularis* on this islet as well, thanks to a shepherd's description. The island contains a fertile valley and could be an interesting area for future herpetofaunal studies. No herpetological information is available on a second islet, Nimos, located just north of Simi.

As to its herpetofauna, Simi contrasts extremely favourable with the nearby islands of Tilos, Khalki, and Nissiros which appear depauperate (Table 2), although a recent documentation by BROGGI (2006) has considerably increased our knowledge of the herpetofauna of Tilos in particular.

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