

### The herpetofauna of Ithaki (Ithaca, Ionian Islands, Greece)

The second smallest of the Ionian Islands, with an area of 96 km<sup>2</sup>, is famous for its role in Homer's Odyssey, but in spite of that claim to fame, Ithaca is off the beaten track. Travel to the island is somewhat complicated and, with no sandy beaches and few historical sights to attract the standard holidaymaker, it remains a destination for individual tourism. The scenic highlight of the island is the capital Vathy, which occupies a very attractive location at the head of the elongated Gulf of Molos. The mostly earth-colored houses on the hillside have ridged roofs, all aligned in the same direction, and the whole picturesque scene is reminiscent of the Dodecanese island of Symi. Ithaca is divided in two mountainous parts linked by an isthmus just 500-600 meters wide. The highest elevations on the limestone island are Niriton (806 m) in the north and Nero-voulo (552 m) in the south. The vegetation is mainly an alternation of evergreen olive groves and macchia on the steep slopes. As is typical of the Mediterranean, most of the annual precipitation of little more than 1000 mm falls in the winter months and seeps away mainly through vertical strata so that there are hardly any springs on the island.

At the beginning of the 20th century, Ithaca had about 10,000 inhabitants, but after the severe earthquake in 1953, many emigrated and the population fell to 3000. Intensively cultivated land is to be found not only in residual form on the usual terraces;

following a targeted highway construction program, carefully managed areas of cultivation with olive- and wine-growing are also to be found in peripheral locations.

The literature – There is a paucity of literature on the island's natural history. The two main sources are "Trees and shrubs of Ithaki" (BORATYNSKI & BROWICZ 1994) and DELFORGE's (1994) "The orchids of the islands Kefallonia and Ithaka".

The only comprehensive and more recent herpetological sources for Ithaca are two articles by KEYMAR (1986a and 1986b), who studied all the Ionian islands, especially with reference to the history of the species there. He saw the islands of Kefallonia, Ithaca and Zakynthos as a single herpetological unit, with the smaller Ithaca naturally endowed with fewer species than the two bigger islands. For Ithaca, KEYMAR (1986a) reports the following species: *Bufo viridis* LAURENTI, 1768, *Cyrtopodion kotschy* (STEINDACHNER, 1870), *Hemidactylus turcicus* (LINNAEUS, 1758), *Tarentola mauritanica* (LINNAEUS, 1758), *Anguis fragilis* LINNAEUS, 1758 (according to GRILLITSCH & CABELA 1990 presumably *A. cephalonicus* WERNER, 1894), *Ablepharus kitaibelii* (BIBRON & BORY, 1833), *Algyroides moreoticus* BIBRON & BORY, 1833, *Algyroides nigropunctatus* (DUMÉRILO & BIBRON, 1839), *Podarcis taurica* (PALLAS, 1814), *Lacerta trilineata* BEDRIAGA, 1886, *Zamenis situla* (LINNAEUS, 1758) and *Vipera ammodytes* (LINNAEUS, 1758). He also saw a *Coluber*, which he thought might be *Hieropsis gemonensis* (LAURENTI, 1768). Whereas WERNER (1894, 1938) recorded one amphibian and seven reptile species for Ithaca, KEYMAR (1986a) thus brought the score in the literature up to one amphibian and eleven reptile species.

CYRÉN (1935, 1941) reported a well-poisoning episode on Ithaca, to which the *B. viridis* population is thought to have fallen victim. He also reported the observation of an unidentified terrapin (in a well) and of green frogs. KEYMAR (1986b) considered it possible to find *Lissotriton vulgaris* (LINNAEUS, 1758), *Hyla arborea* (LINNAEUS, 1758) and *Bufo bufo* (LINNAEUS, 1758) on the island. MAHNERT (1973) listed *V. ammodytes* as the only snake species he observed. On the basis of the description of a snake given by the monk at Katharon, he assumed



Fig. 1: *Dolichophis caspius* (GMELIN, 1789). New record from the Ionian Island of Ithaki, Greece.



Fig. 2: *Malpolon monspessulanus fuscus* CARRANZA, ARNOLD & PLEGUEZUELOS, 2006.  
New record from the Ionian Island of Ithaki, Greece.

that *Elaphe quatuorlineata* (LACÉPÈDE, 1789) lived on the island. Finally, KEYMAR (1986a) also referred to *Testudo hermanni* (GMELIN, 1789), which he says other authors expected to find on the island; the first was WERNER (1894).

The author's observations – The author was able to confirm KEYMAR's list of species (1986a) during his own visit to the island on 15 – 25 April 2008, with the following exceptions:

*Bufo viridis viridis* (LAURENTI, 1768) – MALKMUS (1982) drew attention to the importance of wells for the amphibian populations in Portugal, and this has since been confirmed for the Greek islands by BROGGI (e.g. 1994, 2008). With the changeover to electric groundwater pumps, the traditional open cisterns and the wells that were accessible for amphibians fell increasingly into disuse. But these man-made structures were also spawning grounds and often the last retreat for amphibians. During the author's visit to the island, no surface water was to be seen. Only a single well near the ruins known as Homer's School, near Stavros in the north, allowed amphibian access due to the presence of *Typha domingensis*. None of the other wells – and they are numerous – could be used by amphibians. The Green Toad, the unidentified terrapin and the green frog observed by CYRÉN (1935) are no longer present on the island or at the very brink of extinction. Similarly, speculations on the presence of other amphibian species as suggested by KEYMAR (1986b) should be considered outdated. Interviews conducted around Vathy also failed to produce any relevant indications of amphibians. Increasing desiccation of the land on the Greek islands during the last few decades is a fact that has had disastrous effects on amphibians and hydrophilic reptiles and has led to a loss of species diversity in the herpetofauna there. The local people themselves confirm that there used to be more water on Ithaca. DELFORGE (1994) reported finding specimens of the bog orchid *Orchis laxiflora* at one site in the north of the island, but there are no reports of any such finds today.

*Hierophis gemonensis* and other snake sightings – During the author's visit to the island, a number of snakes were observed, which – with the exception of the Horned

Viper (*Vipera ammodytes*) and the Leopard Snake (*Zamenis situla*) – were either completely patternless or patternless on the rear half of the body. The presence of the Balkan Whip Snake was not confirmed, nor that of *Elaphe quatuorlineata*. On the road from Vathy to Perachori, on the other hand, a Leopard Snake that had been run over by a vehicle was found on 16 April 2008. There were more frequent signs of the presence of the Horned Viper, including one run-over specimen found by the author south of Vathy on 20 April and another found by Peter GOOP and Günter STADLER near Lefki on the northern half of the island on 22 April. On 21 April, Christian BURRI unintentionally disturbed a Horned Viper near Ag. Ioannis on the Marathias plateau in the south of the island, .

*Testudo hermanni* – According to KEYMAR (1986a), a number of authors suspected the presence of Hermann's Tortoise on Ithaca. VALAKOS et al. (2008) included it in the distribution map for Ithaca. In spite of their diligent search, the six members of our party were unable to find a specimen. From the answers received from local residents, we nevertheless consider it possible that Hermann's Tortoise is present on the island. We were told that tortoises do occur on Ithaca, but they are not a frequent sight; they are occasionally to be seen crossing a road. It should be borne in mind, however, that in the case of the Greek islands it is becoming more and more difficult to decide whether such sightings are native specimens or escaped pets. People from mainland Greece sometimes take their tortoises with them when they travel to their local island in summer, and some doubtless escape (cf. BROGGI 2007).

New finds on Ithaca: *Dolichophis caspius* (GMELIN, 1789) – On 16 April 2008 we discovered a long slender snake, approx. 1.5–1.8 m long on the floor of a disused cistern about 3 m deep. It appeared to be a patternless specimen. From the enlargements of our photographs, we saw that the brownish-yellow snake had striking eyes. A lighter-coloured line was also clearly visible in the middle of its smooth body scales. In addition, the elongated head had a slight orange coloring. Following image analysis on the laptop, we returned to the site on 20



April and managed to take even better photographs of the snake. On 22 April we inserted some branches into the cistern so that they reached down to the floor in the hope that the snake would subsequently be able to escape. This specimen of the Caspian Whip Snake must have fallen into the cistern through the round opening, which was about one meter in diameter. The author twice came across the same species on 19 April in the ruins of the ancient town of Paleochora.

For the Ionian Islands, the Caspian Whip Snake had previously only been reported for the Ionian Island of Kefallonia (RICHTER & MAYER 1990) and Corfu (WERNER 1894); according to the distribution map in VALAKOS et al. (2008) it is not to be found in the western Peloponnese. That would suggest a disjunctive area of distribution in this region, which is doubtful. It is more likely that this species has so far been overlooked in these areas.

*Malpolon monspessulanus fuscus* CARANZA, ARNOLD & PLEGUEZUELOS, 2006 – On 19 April 2008 we found a run-over Montpellier Snake south of Vathy, on 22 April a run-over juvenile near Exogi on the northern half of the island and another specimen that had suffered the same fate was found in the middle of Vathy on 24 April. The most striking snake sighting was made on 23 April. Near the turn-off to Kaminia Bay south of Vathy, a fully grown Three-lined Lizard (*L. trilineata*) caught our attention by the roadside when it suddenly performed a complete salto – a show of strength that apparently served to escape from a snake. Almost in the same location we then saw a Montpellier Snake about 1.5 m long rearing up like a cobra. The snake was obviously hunting the lizard and remained in this position for some time. That made it possible to take a series of photographs of the snake (Fig. 2). The Montpellier Snake has not yet been described for Ithaca. But the Herpetological Collection of the Natural History Museum in Vienna got a specimen (NHMW 26556 - Vathi, Ithaca, GR; leg. BILEK & KRITSCHER, 25.5.1982). The Montpellier Snake is known from Kefallonia (SCHREIBER 1912) and Zakynthos (WERNER 1894).

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