

Hellenolacerta graeca
(BEDRIAGA, 1886), from xeric
habitats in the south Peloponnese:
ecological implications

The Peloponnese is a herpetological hotspot in Europe, equally attracting the early pioneers of European herpetology and modern herpetologists (PAFILIS 2010). This large peninsula in southern Greece hosts 48 species of reptiles and amphibians, four of which are Peloponnese endemics (VALAKOS et al. 2008). The Greek Rock Lizard, *Hellenolacerta graeca* (BEDRIAGA, 1886), falls into this last group and represents the only species of the genus (ARNOLD et al. 2007).

Contrary to other southwest Greek endemics such as *Algyroides moreoticus* BIBRON & BORY, 1833, or *Anguis cephallonicus* WERNER, 1894, that also occur in the south Ionian Islands (CHONDROPOULOS 1986; GRILLITSCH & CABELA 1990), *Hellenolacerta graeca* is restricted to the Peloponnese, where it shows a rather scattered distribution (VALAKOS et al. 2008). The species is supposed to range from coastal areas up to 1,600 m a.s.l., but the majority of its populations are found between 300 and 800 m a.s.l. (WERNER 1937; SOFIANIDOU 1997; ARNOLD 2003; VALAKOS et al. 2008). The Greek Rock Lizard prefers humid, shady areas near freshwater and rich vegetation to avoid high temperatures and strong sunlight (BÖHME 1984; SOFIANIDOU 1997; VALAKOS et al. 2008; BÖHME & LYMBERAKIS 2009). It is usually found in rocky areas and on tree trunks in mountain canyons near the water (WERNER 1937; BISCHOFF & BISCHOFF 1980). This very specific habitat use made IUCN classify the species as Near Threatened not only because of its small range (less than 20,000 km²) but also because of the decline in the extent and quality of its habitat (BÖHME & LYMBERAKIS 2009).



Fig. 1: Dark male *Hellenolacerta graeca* (BEDRIAGA, 1886) from Gerolimenas, Peloponnese, Greece (36°28'50.63" N, 22°24'3.84" E, 2 m a.s.l.).

During a field trip in October 2015, the authors encountered a population of *H. graeca* at the small fishing village of Gerolimenas (36°28'50.63" N, 22°24'3.84" E, 5 m a.s.l., province of Mani, prefecture of Lakonia, Peloponnese, Greece). Four individuals were spotted on piles of rocks, among houses and ruins of old buildings, at a distance of approximately 10 m from the sea. The lizards bore all the color pattern features of the species (comp. BÖHME 1984) but were darker than most conspecifics of other sites (Fig. 1). A young male captured by noose (snout-vent length: 68 mm, body mass: 6.5 g, regenerated tail: 45 mm) was preserved in alcohol and added to the Herpetological Collection of the Museum of Natural History of Crete (accession number MNHC 80.3.65.41).

This new record expands the knowledge on the distribution of *H. graeca* in Mani Peninsula and proves that the Greek Rock Lizard can survive even in dry, arid

habitats at sea level. In the prefecture of Lakonia, *H. graeca* was reported from Skala (BUTTLER 1987), Mount Taygetos (BRINGSOE 1985), Mystras and Elikia (OSTENRATH 1973), Sparta and Vamvakou (BISCHOFF & BISCHOFF 1980). Its presence on Mani Peninsula, the southernmost tip of mainland Europe, is known only from four points (Fig. 2) that differ considerably in terms of humidity and vegetation: Gytheio, Itylo and Kardamyli in central and northern Mani (OSTENRATH 1973; WEISSINGER 1989) receive some rainfall, maintain small water bodies (rivulets and streams) and host maquis vegetation interspersed with trees and olive groves whereas, Porto Kagio (WEISSINGER 1989) is much drier and characterized by rocky ground without freshwater bodies and low phrygana shrubs. The habitat of Gerolimenas shares the features with the latter and thus deviates considerably from the ecological standards of the species. South Mani is among the most arid

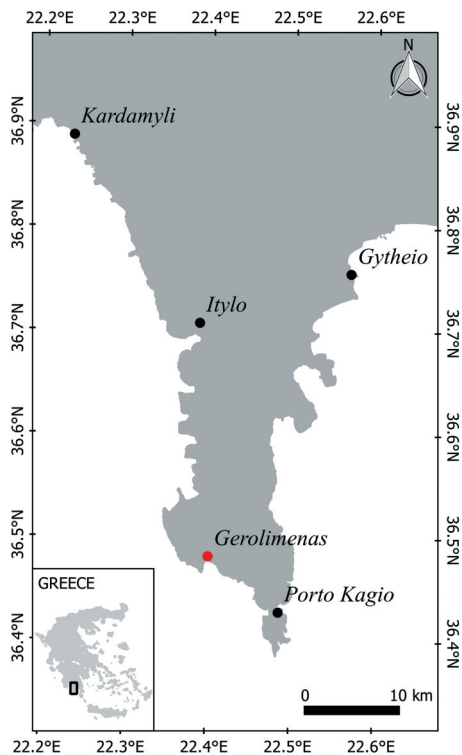


Fig. 2: The known distribution of *Hellenolacerta graeca* (BEDRIAGA, 1886) in the Mani Peninsula (Peloponnese, Greece). Dark dots denote published records, the red dot the new one in Gerolimenas.

areas in Greece and freshwater is a rare commodity. Nonetheless *H. graeca* survives under these harsh conditions, contrary to what the literature suggests (SOFIANIDOU 1997; ARNOLD 2003; VALAKOS et al. 2008; BÖHME & LYMBERAKIS 2009). The xeric habitats of the Gerolimenas and Porto Kagio populations call for revision of certain aspects of this lizard's ecology.

REFERENCES: ARNOLD, E. N. (2003): Reptiles and amphibians of Europe. Princeton and Oxford (Princeton University Press), pp. 288. ARNOLD, E. N. & ARRIBAS, O. & CARRANZA, S. (2007): Systematics of the Palaearctic and Oriental lizard tribe Lacertini (Squamata: Lacertidae: Lacertinae), with descriptions of eight new genera.- *Zootaxa*, Auckland; 430: 1-86. BISCHOFF, W. & BISCHOFF, U. (1980): Einige Bemerkungen zur Herpetofauna des Peloponnes.- *Herpetofauna*, Weinstadt; 2 (4): 17-22. BÖHME, W. (1984): *Lacerta graeca* BEDRIAGA 1886 – Taygetos-Eidechse,

Griechische Spitzkopfeidechse; pp. 255-264. In: BÖHME, W. (Ed.): *Handbuch der Reptilien und Amphibien Europas Echsen II (Lacerta)*. Wiesbaden (Aula-Verlag). BÖHME, W. & LYMBERAKIS, P. (2009): *Hellenolacerta graeca*. The IUCN Red List of Threatened Species 2009: e.T61523A12502676. WWW document available at < <http://www.iucnredlist.org/details/61523/0> > and < <http://dx.doi.org/10.2305/IUCN.UK.2009.RLTS.T61523A12502676.en> > [last accessed: April 7, 2016]. BRINGSØE, H. (1985): A check-list of Peloponnesian amphibians and reptiles, including new records from Greece.- *Annales Muséi Goulandris*, Kifissia; 7: 271-318. BUTTLE, D. (1987): Observations on some of the herpetofauna of the Peloponnese.- *Bulletin of the British Herpetological Society*, London; 20: 22-28. CHONDROPOULOS, B. P. (1986): A checklist of the Greek reptiles. I. The lizards.- *Amphibia-Reptilia*, Leiden; 217-235. GRILLITSCH, H. & CABELA, A. (1990): Zum systematischen Status der Blindschleichen (Squamata: Anguillidae) der Peloponnes und der südlichen Ionischen Inseln (Griechenland).- *Herpetozoa*, Wien; 2 (3/4): 131-153. OSTENRATH, F. (1973): Untersuchungen zur intraspezifischen Variabilität der Taygetos-Eidechse, *Lacerta graeca*.- Unpubl. master thesis, University of Bonn, pp. 69. PAFILIS, P. (2010): A brief history of Greek herpetology.- *Bonn Zoological Bulletin*, Bonn; 57 (2): 329-345. SOFIANIDOU, T. S. (1997): *Lacerta graeca* (BEDRIAGA, 1886); pp. 242-243. In: GASC, J. P. & CABELA, A. & CRNOBRNJIA-ISAIOVIC, J. & DOLMEN, D. & GROSSENBACHER, K. & HAFNER, P. & LESCURE, J. & MARTENS, H. & MARTINEZ RICA, J. P. & MAURIN, H. & OLIVEIRA, M. E. & SOFIANIDOU, T. S. & VEITH, M. & ZUIDERWIJK, A. (Eds): *Atlas of amphibians and reptiles in Europe*, Societas Europaea Herpetologica, Muséum National d'Histoire Naturelle & Service du Patrimoine Naturel, Paris, pp. 494 [Collection Patrimoines Naturels, 29]. VALAKOS, E. & PAFILIS, P. & SOTIROPOULOS, K. & LYMBERAKIS, P. & MARAGOU, P. & FOULOPOULOS, J. (2008): The amphibians and reptiles of Greece. Frankfurt am Main: (Edition Chimaira), pp. 463 [Frankfurt Contributions to Natural History, volume 32]. WEISSINGER, H. (1989): Observations on the habitat selection of the Greek Rock Lizard, *Lacerta graeca* BEDRIAGA, 1886 (Sauria: Lacertidae).- *Herpetozoa*, Wien; 1 (3/4): 147-148. WERNER, F. (1937): Beiträge zur Kenntnis der Tierwelt des Peloponnes, der Inseln Kythira und Euboea sowie der kleinen Inseln im Saronischen Golf.- *Sitzungsberichte der Mathematisch Naturwissenschaftlichen Klasse der Akademie der Wissenschaften*, Wien; (Abt. I) 146 (3-4): 135-153.

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