

## *Pelophylax ridibundus*

**System:** Freshwater\_terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Amphibia	Anura	Ranidae

### Common name

### Synonym

### Similar species

### Summary

The Marsh frog (*Pelophylax ridibundus*) is native to Central and Southern Europe. The Marsh frog is mostly green with dark spots with a green vertebral stripe on its back. The Marsh frog adapts to a wide range of water habitats. It feeds on invertebrates and occasionally on small fish. Outside of their natural range the Marsh frog hybridizes with native species of the same genus. It is spreading to Asia and Northern Europe. Currently no effective management of this invasive species has been applied.



[view this species on IUCN Red List](#)

### Species Description

The Marsh frog (*Pelophylax ridibundus*) is the largest native European frog. The species has a wide distribution in Central and Southern Europe and Western Asia (Erismis, 2011). The dorsal surface is green with dark spots. Occasionally the Marsh frog can have a green vertebral stripe on its back. Females are larger than males and can reach up to 13cm (www.herpetofauna.co.uk, 22.02.2018). The average size of adults is 60mm (Zhelev et al., 2013). The species is listed in the Red List of Threatened Species in the category Least Concern (IUCN, 2018).

### Notes

The species is very resistant to environmental pollution (IUCN Red List, 2018). *Pelophylax ridibundus* is listed on Annex V of the EU Natural Habitats Directive and on Appendix III of the Berne Convention.

### Lifecycle Stages

Hibernation occurs for two months in time of cooler periods of the year (September to October in Northern regions). The metamorphosis is mostly completed after two years (<https://amphibiaweb.org/species/5137>, 26.02.2019).

### Uses

The species is used for research and food trade in eastern Asia and on the Balkan. Populations in Turkey are threatened by intensive frog leg meat trade (IUCN Red List, 2018). In many native areas the abundance of the species has declined due to anthropogenic activities. The commercial collection of the species led to significant changes in age and body size (Erismis, 2011).



## Habitat Description

The species' natural habitats are riparian ecosystems, where it is always to find close to a water body (Balint et al., 2010). It occurs up to 2,500m above sea level. The water habitats can vary from artificial water bodies in highly fragmented urban landscapes, shallow ponds to large lakes and rivers. The species has also been observed in saline water and at 1m distance to marine water habitats (IUCN Red List, 2018). The species can survive in the conditions of anthropogenic pollution. In log term the species adapts to anthropogenic pollutions, which result in increase in the number of erythrocytes, leukocytes and amount of haemoglobin (Zhelev et al., 2013).

## Reproduction

The Marsh Frog reaches sexual maturity at 2 years of age in male and at 3 years in female. The breeding starts with the males forming loud choruses starts in spring. The number of laid eggs per year varies from 1255 to 2610 eggs, depending on the age of the female (Erismis, 2011).

## Nutrition

Tadpoles feed on detritus, algae, and higher plants in addition to invertebrates (<https://amphibiaweb.org/species/5137>, 26.02.2019). The adult Marsh Frog preys on many different taxonomic groups. It mostly feeds on invertebrates, especially on terrestrial adult arthropods. The most frequently observed groups of prey are Heteroptera, Coleoptera, Araneida, Carabida followed by Lepidoptera larvae. Although the species is mostly aquatic, the majority of the preys had a terrestrial origin. Plants can be ingested accidentally during foraging, but are not a food source for the Marsh frog (Zhelev et al., 2013).

## General Impacts

Outside of their natural range the Marsh frog hybridizes with native species of the same genus. Genetic interactions were observed between the invasive *P. ridibundus* and the native *P. lessonae* and *P. esculentus* in Western Europe (Leuenberger et al., 2014).

## Management Info

The species can be captured by hand or using nets with handle, at daylight (Balint et al., 2010). Further the species can be captured at night with an electrical torch in the water and along a river bank (Zhelev et al., 2013).

## Pathway

Natural dispersal. Mikulíček, P., & Pišút, P. (2012). Leuenberger et al., (2014).

**Principal source:** Frost, D.R. 2017. Amphibian Species of the World: an Online Reference. Version 6.0. American Museum of Natural History, New York, USA Available at: <http://research.amnh.org/herpetology/amphibia/index.html>. Orrell T. (custodian) (2018). ITIS Global: The Integrated Taxonomic Information System (version Jun 2017). In: Roskov Y., Abucay L., Orrell T., Nicolson D., Bailly N., Kirk P.M., Bourgoin T., DeWalt R.E., Decock W., De Wever A., Nieukerken E. van, Zarucchi J., Penev L., eds. (2018). Species 2000 & ITIS Catalogue of Life, 30th January 2018. Digital resource at [www.catalogueoflife.org/col](http://www.catalogueoflife.org/col). Species 2000: Naturalis, Leiden, the Netherlands. ISSN 2405-8858. AmphibiaWeb 2007 *Pelophylax ridibundus*: Marsh Frog University of California, Berkeley, CA, USA. Accessed Feb 20, 2018. Leuenberger, J., Gander, A., Schmidt, B.R. & Perrin, R. 2014. Are invasive marsh frogs (*Pelophylax ridibundus*) replacing the native *P. lessonae*/*P. esculentus* hybridogenetic complex in Western Europe? Genetic evidence from a field study. Conservation Genetics Erismis, U. C. (2011). Abundance, demography and population structure of *Pelophylax ridibundus* (Anura: Ranidae) in 26-August National Park (Turkey). North-Western Journal of Zoology, 7(1).

## Compiler:

## Review:

## Publication date:

## ALIEN RANGE

[1] BELGIUM

[1] RUSSIAN FEDERATION

[1] SWITZERLAND

[1] WESTERN EUROPE

[1] CENTRAL EUROPE

[1] SWEDEN

[1] UNITED KINGDOM

## Red List assessed species 1: LC = 1;

[Pelophylax lessonae](#) LC

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# GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Pelophylax ridibundus*

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