

On the occurrence of the Italian agile frog (*Rana latastei* Boulenger, 1879) in the Slovenian part of Istria

PODATKI O POJAVLJANJU LAŠKE ŽABE
(*RANA LATASTEI* BOULENGER, 1879) V
SLOVENSKEM DELU ISTRE

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The Italian agile frog (*Rana latastei* Boulenger, 1879) has its distribution range centred in the lowlands of the Padano Venetian plain, a highly degraded region of northern Italy, where the majority of appropriate habitats have been altered a great deal. Its distribution range extends into southern Switzerland (Canton Ticino) in the north, while to the east it reaches western Slovenia along the Vipava River. It has also been reported from the Croatian part of northern Istria (Mirna River valley with its tributaries). Burlin & Dolce (1986) suggest that the presence of the Italian agile frog in the Mirna River Valley is disjunctive from the rest of the range, as a result of sea level increase after the Würm glaciation. A new insight into the history of the species was offered by Garner et al. (2004), who proposed, based on microsatellite analysis results, that the recent distribution of the species is a result of its postglacial expansion from the Balkan refugium.

The Italian agile frog is one of the European amphibian species of major conservation concern. Due to the high fragmentation of its habitat and continuing decline in the extent and quality of its habitat, the species is listed as Vulnerable (VU) in the IUCN red data list (Sindaco et al. 2009). It is also included in all national red data lists throughout its distribution range (Bulgarini et al. 1998, Anonymous 2002, Schmidt & Zumbach 2005, Janev Hutinec et al. 2006). The species is included in all major European conservation agreements. *Rana latastei* is listed as a strictly protected species in Appendix II of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and in Annexes

II and IV of the Directive on the Conservation of Natural Habitats of Wild Fauna and Flora. The Habitat Directive provides a legal basis for the establishment of Special Areas of Conservation sites (SCI) within the Natura 2000 network of protected areas. In Slovenia, two SCI sites were established for the protection of the Italian agile frog, Dolina Branice (SI3000225) and Dolina Vipave (SI3000226) (Poboljsaj & Lešnik 2005).

Until the late 1990s, the Italian agile frog had been known in our country only from the Panovec forest near Nova Gorica (coll. Schreiber 1900 in Naturhistorisches Museum Wien cit. after Sket 1992, Poboljsaj & Lešnik 2005). Activities related to the implementation of Natura 2000 network in Slovenia enabled us to get a deeper insight into the occurrence of the species in Slovenia. Due to intensive field research in recent years, the species was found on many localities in the Vipava and Branica Valleys and subsequently also in the Goriška Brda region, as well as in the valley of the Idrija River (Poboljsaj & Lešnik 2005, Brstilo 2007). The occurrence of the Italian agile frog in the Slovenian part of Istria is primarily associated with its presence on the Croatian side. According to Janev Hutinec et al. (2006) and Kuljerić (2011), the species occurs in the Mirna Valley, penetrating along its tributaries all the way to the border with Slovenia. Kletečki (2003) even reports on its presence in the Dragonja River Valley, but without specifying any exact locality. However, despite regular field surveys of the area, the species has never been confirmed to occur in the Slovenian part of Istria (Cipot 2005, Poboljsaj & Lešnik 2005, Poboljsaj 2007).

Here I report on the finding of a single adult Italian Agile Frog recorded on the 29th of October 2011 on the woodland slopes of Suje along the left bank of the river Dragonja, about 4.5 km east from the village of Dragonja (UTM square UL93; Fig. 1). The specimen was determined on the basis of its characteristic colouration: (1) the typical white line above the lip that ends under the eye, and (2) the characteristic dark coloured throat interrupted by a white line in the centre (Veenvliet & Kus Veenvliet 2003). The animal was photo documented for additional verification of species identification (Figs. 2 and 3). The location of the finding is covered by a wood association of hop hornbeam and pubescent oak (*Ostryo-Quercetum pubescens*) and belongs to a forest reserve »Krkavška komunela«, which is managed by the

Slovenian Forest Service. Similar conditions, which may create a suitable environment for the species, continue to the east reaching the highest point on the hill Novi Brič (312 m a.s.l.), covered mainly by vineyards, while the slopes to the west continue within the Croatian national territory.

The new finding suggests that the occurrence of the species may be wider in this part of its distribution range. Other similar habitats in this area should be surveyed in order to reveal the status of the species in the region. The major part of the Dragonja River Valley is located within the SCI area Slovenska Istra (SI30000212). The Italian agile frog is not a qualifying species for the site. In the future, it would be necessary to determine the extent of its occurrence and the population size. Based on these findings, it would be possible to assess the importance of this area for the species' conservation status in Slovenia.

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References

- Anonymous (2002): Pravilnik o uvrstitvi ogroženih rastlinskih in živalskih vrst v rdeči seznam. Ur.l. RS, št. 82/2002.
- Brstilo T. (2007): Ocena velikosti populacije in razmerje med spoloma laške žabe (*Rana latastei*) v Volčji Dragi. Diplomsko delo. Univerza v Ljubljani, Biotehniška fakulteta, Oddelek za Biologijo, Ljubljana, 70 pp.
- Bulgarini F., Calvario E., Fraticelli F., Petretti F., Sarrocco S. (1998): Libro rosso degli animali d'Italia. Vertebrati. WWF, Rome.
- Burlin M., Dolce S. (1986): Osservazioni faunistiche e sull'erpetofauna dell'Istria. I: „Amphibia“. Atti del Museo civico di Storia Naturale di Trieste 39(1): 65-85.
- Cipot M. (2005): Poročilo o delu skupine za dvoživke. In: Planinc G. (Ed.), Raziskovalni tabor študentov biologije Dekani 2004. Društvo študentov biologije, Ljubljana, 84 pp.
- Cox N., Chanson J., Stuart S. (2006): The status and distribution of reptiles and amphibians of the Mediterranean basin. IUCN Species Programme. The World Conservation Union IUCN, Gland. <http://www.iucnredlist.org/>
- Garner T.W.J., Pearman P.B., Angelone S. (2004): Genetic diversity across a vertebrate species' range: a test of the central-peripheral hypothesis. Molecular Ecology 13: 1047-1053.
- Janev-Hutinec B., Kletečki E., Lazar B., Podnar Lešić M., Skejčić J., Tadić Z., Tvrković N. (2006): Crvena knjiga vodozemaca i gnezova Hrvatske, Državni zavod za zaštitu prirode, Zagreb.
- Kletečki E. (2003): Talijanska žaba (*Rana latastei*) vrsta koja nestaje. Meridijan – časopis za zemljopis, povijest, ekologiju i putovanja 10(74): 46-48.
- Kuljerić M. (2011): Lombardijska smeđa žaba, *Rana latastei* Boulenger, 1879 (Amphibia, Anura). Hyla, Herpetological Bulletin 1: 3-20.
- Poboljšaj K. (2007): Dvoživke (Amphibia) Slovenskega primorja. Varstvo narave 20: 110-119.
- Poboljšaj K., Lešnik A. (2005): Dodelava strokovnih osnov za opredeljevanje posebnih varstvenih območij Natura 2000 za laško žabo (*Rana latastei*) (končno poročilo). Naročnik: MOPE, Ljubljana. Center za kartografijo favne in flore, Miklavž na Dravskem polju, 26 pp., digitalne priloge.
- Schmidt B.R., Zumbach S. (2005): Lista Rossa degli anfibi minacciati in Svizzera. Editori: Ufficio federale dell'ambiente, delle foreste e del paesaggio, Bernae Centro di coordinamento per la protezione degli anfibi e dei rettili in Svizzera, Berna. Collana dell'UFAFP Ambiente – Esecuzione, 48 pp.
- Sindaco R., Romano A., Andreone F., Garner T., Schmidt B., Corti C., Vogrin M. (2009): *Rana latastei*. In: IUCN 2011. IUCN Red List of Threatened Species. Version 2011.2 <www.iucnredlist.org/> Downloaded on 8 December 2011.
- Sket B. (1992): Rdeči seznam ogroženih vrst dvoživk (Amphibia) v Sloveniji. Varstvo narave 17: 45-49.
- Veenvliet P., Kus Veenvliet J. (2003): Dvoživke Slovenije: priročnik za določanje. Symbiosis – Zavod za naravovarstveno raziskovanje in izobraževanje, Grahovo, pp. 50-51.

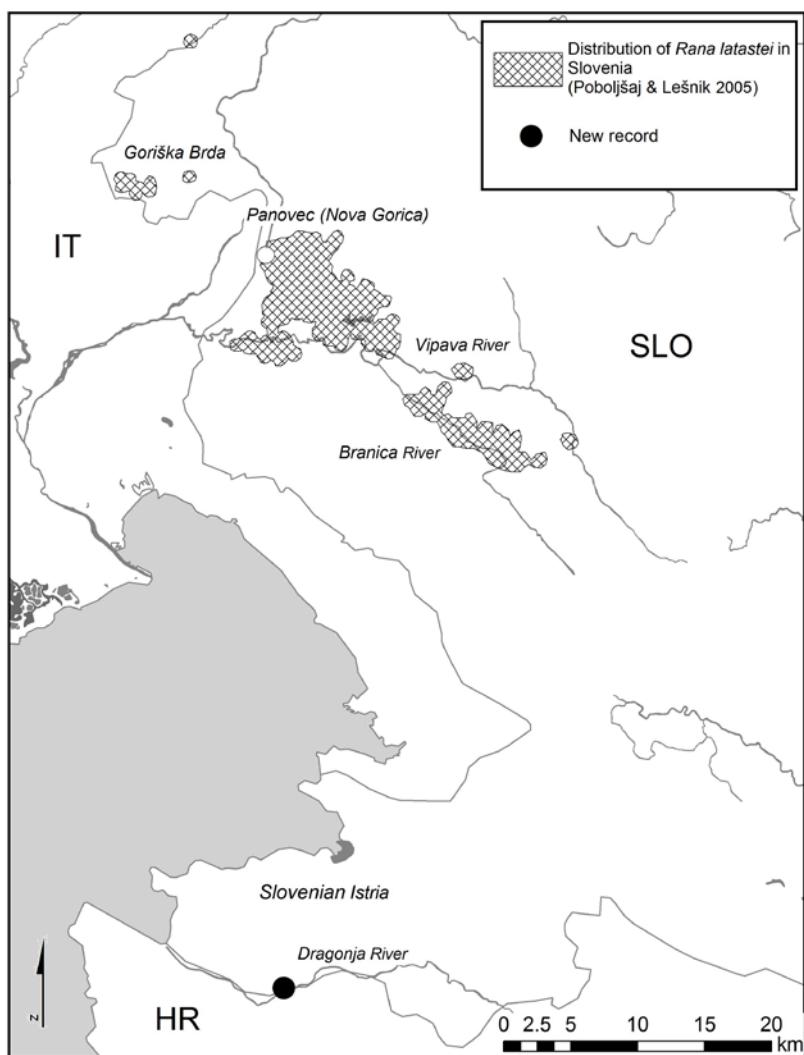


Figure 1. Distribution map of Italian agile frog (*Rana latastei*) in Slovenia according to Poboljšaj & Lešnik (2005) with the new additional record.

Slika 1. Razširjenost laške žabe (*Rana latastei*) po Poboljšaj & Lešnik (2005) z označenim novim podatkom.



Figure 2. Italian agile frog (*Rana latastei*), lateral view.
Slika 2. Laška žaba (*Rana latastei*), pogled na bočno stran.



Figure 3. Italian agile frog (*Rana latastei*), ventral view.
Slika 3. Laška žaba (*Rana latastei*), pogled na ventralno stran.