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First report of leech predation on *Pleurodeles nebulosus* (Guichenot, 1850) in Kabylia, Algeria

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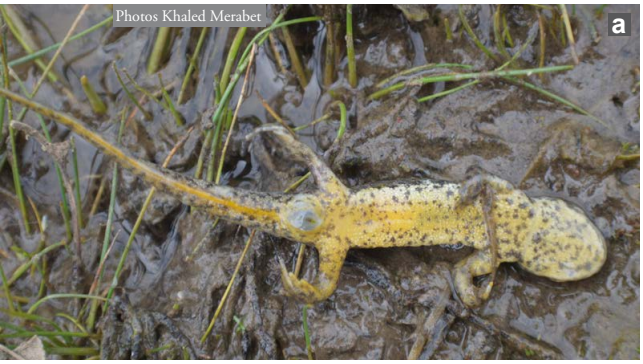
Resumen: En la presente nota se describe un caso de parasitismo del hirudíneo *Hirudo troctina* sobre el urodelo *Pleurodeles nebulosus* en Kabylia.

In Algeria, the Algerian newt, *Pleurodeles nebulosus* (Guichenot, 1850), is present in humid, sub-humid and semi-arid Mediterranean areas but absent from the northwestern region (Mateo *et al.*, 2013). The distribution map for *P. nebulosus* largely follows the map presented in Veith *et al.* (2004). Recently, new studies provided some valuable data on the ecology and reproduction of *P. nebulosus* in Algeria (e.g., Ben Hassine & Escoriza, 2014; Escoriza & Ben Hassine, 2015; Merabet *et al.*, 2016). The continuing decline in the extent and quality of amphibians' habitat are the main cause of amphibian populations decline in the Maghreb (e.g., Samraoui *et al.*, 2012). Between other minor threats, intensive leech predation has been reported as a potential cause for local population decline (Beukema & Philip de Pous, 2011).

Predation of leeches upon *P. nebulosus* is a known and already reported phenomenon from Tunisia (Ben Hassine *et al.*, 2013). However, is not yet well understood if this predation is a common phenomenon and can have a negative effect on amphibian populations. In Algeria, based on the existing literature, Billet (1904) was the first to mention leech predation on populations of *Pelophylax saharicus* (Boulenger, 1913), who related the presence of the leech with anuran trypanosomiasis.

With this note, we wish to draw attention to one particular parasite, *Hirudo troctina* (Johnson, 1816) which may be a locally important source of mortality for *P. nebulosus* in Kabylia.

While conducting a survey in Kabylia (Chemini) on 14 March 2016, we made several observations of dead individuals of *P. nebulosus* (Figure 1a) near a large permanent pound situated at 1600 masl (36°37'41.406"N, 4°.34'4.705"E) (Figure 1b). In the visited site we found 10 dead animals and many others suffering from leech predation by *H. troctina* (Figure1c). After a through exploration of the water body we found a lot of leeches attacking especially *P. nebulosus* and no other amphibians.



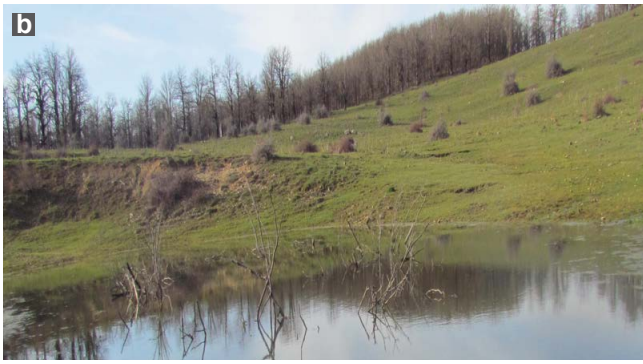


Figure 1: a) Dead individual of *P. nebulosus* in Chemini. b) The visited site in Chemini (Kabylia). c) Predation by *H. troctina* on *P. nebulosus* in Chemini (Kabylia).
Figura 1: a) Ejemplar de *P. nebulosus* muerto en Chemini. b) El lugar visitado en Chemini (Kabylia). c) Depredación de *P. nebulosus* por *H. troctina* en Chemini (Kabylia).

In conclusion, we propose that punctual predation episodes by freshwater leeches (*H. troctina*) in the reported site can cause many deaths in *P. nebulosus* populations at the local scale. This observation should be taken seriously to measure if these attacks by leeches have effects on local population dynamics, and a strict study is needed to know if it is affecting other *P. nebulosus* populations.

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