## Highest altitudinal record of the ocellated lizard *Timon pater* (Lataste, 1880) (Squamata: Lacertidae)

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Among North African lacertids, the ocellated lizards of the small genus Timon include two species, Timon pater (Lataste, 1880) and Timon tangitanus (Boulenger, 1881) which are distributed across north-western Africa (Paulo et al., 2008; Perera and Harris, 2010). These two lizards have been long considered a single species. However, a study based on electrophoretic and morphological criteria by (Mateo et al., 1996) divided the North African ocellated lizards into two distinct species, T. pater, which has a distribution area restricted to northern Algeria, northern Tunisia and a small area in north-eastern Morocco, and T. tangitanus, which occurs only in Morocco (for a detailed current distribution map see Ahmadzadeh et al. (2016)). Accordingly, the highest altitude record reported by Schleich et al. (1996) in the haut plain of Oukaïmedene within the haut Atlas (southwestern Morocco) at 2650 m is certainly specific to T. tangitanus and not to T. pater.

During a one-year field study (from June 2013 until May 2014) on some ecological traits of lacertid lizards (among which *T. pater*), conducted in Djebel Chélia (north-eastern Algeria) (Fig. 1A), along an altitudinal gradient (max. 2328 m), we were recording the coordinates and altitude of all encountered lizards using a hand-held Garmin eTrex 10 GPS receiver (Garmin Ltd, Schaffhausen, Switzerland). The highest altitude record of *T. pater* was the one of an adult male specimen (Fig. 2), observed on 28 June of 2013 at 15:21 pm under sunny warm weather (28°C) at an altitude of 2111 m (Coordinates: 35.311517°N; 6.637491°E), near a dead Atlas cedar tree (Fig. 1B). This is likely the highest

altitude record of *T. pater* across its distribution area for two reasons: (i) the maximum altitude of Djebel Chélia reaches 2328 m, representing not only the highest peak of this mountain, but also of all northern Algeria, (ii) the highest peak in Tunisia reaches 1544 m at Djebel Chambi.

Djebel Chélia is located in the heart of the Aurès Massif, between the provinces of Batna and Khenchela, north-eastern Algeria (Fig. 1A). Weather data based on 24-year period (1989 to 2013), in addition to the Emberger Quotient (Daget, 1977) suggest that the climate is sub-humid Mediterranean. It is an open forest and mainly consists of pure stands of Atlas cedar trees with minor presence of prickly juniper and planted Mediterranean cypress. The main understorey plant species are *Ampelodesmos mauritanica*, *Asphodelus ramosus*, *Berberis hispanica*, *Bupleurum spinosum*, *Calycotome spinosa*, *Erinacea anthyllis* and *Sedum acre*.

The present record confirms that similarly to the observations reported by Schleich et al. (1996) on



Figure 2. The male specimen of *Timon pater* recorded at an altitude of 2111 m in Djebel Chélia. Photo by Messaoud Saoudi.

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Figure 1. (A): geographical location of the recorded *Timon pater* (red dot) in Djebel Chélia, north-eastern Algeria; (B): habitat of the recorded *Timon pater*. Photo by Idriss Bouam.

the Moroccan ocellated lizard, *T. pater* is frequent in mountainous massifs at high altitudes.

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## References

- Ahmadzadeh, F., Flecks, M., Carretero, M.A., Böhme, W., Ihlow, F., Kapli, P., Miraldo, A., Rödder, D. (2016): Separate histories in both sides of the Mediterranean: phylogeny and niche evolution of ocellated lizards. Journal of Biogeography 43: 1242-1253.
- Daget, P. (1977): Le bioclimat Méditerranéen: Analyse des formes climatiques par le système d'Emberger. Plant Ecology 34: 87-103.

- Mateo, J.A., López-Jurado, L.F., Guillaume, C.P. (1996): Variabilité électrophorétique et morphologique des lézards ocellés (Lacertidae): un complexe d'espèces de part et d'autre du détroit de Gibraltar. Comptes rendus de l'Académie des sciences, Série 3, Sciences de la vie 319: 737–746.
- Paulo, O.S., Pinheiro, J., Miraldo, A., Bruford, M.W., Jordan, W.C., Nichols, R.A. (2008): The role of vicariance vs. dispersal in shaping genetic patterns in ocellated lizard species in the western Mediterranean. Molecular Ecology 17: 1535-1551.
- Perera, A., Harris, D.J. (2010): Genetic variability in the ocellated lizard *Timon tangitanus* in Morocco. African Zoology 42: 321-329.
- Schleich, H.H., Kastle, W., Kabisch, K. (1996): Amphibians and Reptiles of North Africa. Koeltz, Koenigstein.