

# The pernicious effect of retroactive changes in the Code: *Darevskia* and nomenclatorial stability, a reply to Busack *et al.* (2016)

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Busack *et al.* (2016) concluded that the name *Darevskia* should be attributed to Arribas (1999) instead of Arribas (1997), rendering the latter name a junior synonym of *Caucasilacerta* Harris *et al.* (1998). In this paper, we provide a detailed answer to Busack *et al.* (2016) and argue that Arribas (1997) fulfilled the publication requirements of the International Code of Zoological Nomenclature (ICZN) in place in 1997 and, therefore, *Darevskia* Arribas, 1997 is a valid name. In order to clarify this issue, a case has been submitted to the ICZN. To avoid unnecessary confusion in Old World Lacertid taxonomy, we recommend that until the commission rules on this case, Arribas (1997) should continue to be considered the authority of both *Darevskia* and *Iberolacerta*.

**Key words:** *Caucasilacerta*; *Darevskia*; *Iberolacerta*; ICZN; microfiche.

In a recent manuscript by BUSACK *et al.* (2016), these authors conclude that the name *Darevskia* should be attributed to ARRIBAS (1999) instead of ARRIBAS (1997), rendering this name as a junior invalid synonym of *Caucasilacerta* HARRIS, ARNOLD & THOMAS, 1998, which according to the authors is not a *nomen nudum* and should, therefore, replace *Darevskia* as the valid name of this genus. Additionally, BUSACK *et al.* (2016) consider that the publication describing the genus *Iberolacerta* is

also ARRIBAS (1999) instead of ARRIBAS (1997). While we agree that there has been some confusion in the literature regarding the date that should be attributed for *Darevskia* (1997 or 1999), it is necessary to point out that the manuscript by BUSACK *et al.* (2016) contains an important mistake: contrary to what they say, the name *Darevskia* was made available from the 1997 thesis when first published, since publications in microfiches were allowed in the 1985 edition of the International Code of Zoologi-

cal Nomenclature (the Code hereafter), which was then in force. BUSACK *et al.* (2016) confuse microfiche with microfilm, the latter a forbidden method for publication of nomenclatural acts (see point 1 below). *Darevskia* ARRIBAS, 1997 is currently unavailable, only because of a retroactive change in the Code introduced in the 1999 edition, which removed the possibility to publish names in microfiches. Because of this retroactive change between the 1985 and 1999 editions of the Code, an application has been made to the International Commission on Zoological Nomenclature (ICZN, Case 3711, in revision, to be published in the Bulletin of Zoological Nomenclature and voted), to make *Darevskia* ARRIBAS 1997 available, and hence, to preserve this widely used name over the hardly ever used name *Caucasilacerta* HARRIS, ARNOLD & THOMAS, 1998.

We, therefore, urge the scientific community to refrain from using *Caucasilacerta*. The conclusions of BUSACK *et al.* (2016) would seriously disrupt communication in Old World Lacertid taxonomy, if they are followed. First, the Committee has to rule on case 3711 (and the prevailing use maintained in the meantime; Art 82.1 of the Code), deciding if ARRIBAS (1997) (microfiche publication) or ARRIBAS (1999) (paper publication) is the valid description of both *Iberolacerta* and *Darevskia*. Furthermore, arguments have been presented suggesting that *Caucasilacerta* should be considered a *nomen nudum* (see ARRIBAS, 2016).

We provide below, a detailed answer to BUSACK *et al.* (2016) to clarify several issues:

1) ARRIBAS (1997) was valid when published in 1997, because microfiche was a

**Article 9. What does not constitute publication.**—Notwithstanding the provisions of Article 8, none of the following procedures or acts constitutes publication within the meaning of the Code:

- (1) after 1930 handwriting reproduced as such by some mechanical or graphic process;
- (2) photographs as such [except for microcards and microfiche in works first issued after 1985];
- (3) photocopies as such (e.g., electrostatic or xerographic reproductions) unless such a method is used to produce a work first issued after 1985 that satisfies the criteria of Article 8;
- (4) microfilm;
- (5) proof sheets;
- (6) computer printouts as such;
- (7) acoustic recordings as such made by any method;

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**Figure 1:** Reproduction of Art. 9 of the 1985 edition of the Code in which it can be seen that it clearly distinguished microfiche from photographs [Article 9(2)] and microfilms [Article 9(4)], allowing microfiche but forbidding the use of photographs and microfilms as valid methods for publication of nomenclatorial acts.

valid publication form (although not recommended) in the former Code (see Recommendation 8 A. in the 1985 Code edition). Also, they clearly distinguished microfiche from photographs and microfilms that according to Article 9(2) and 9(4) (ICZN, 1985) (Fig. 1) were not considered valid methods for publication of nomenclatorial acts: “(2) photographs as such except for microcards and microfiche in works first issued after 1985” and “(4) microfilm” (Art. 9(4); ICZN, 1985). As can be seen, the distinction between microfiche and microfilms was clear in the 1985 edition of the Code. Microfiche stopped being allowed in the 1999 version of the code (now in force) and in its amendments (Art 8.4; 1999, 2008, 2012), only paper and optical disks are allowed as physical support for publication of nomenclatorial acts. Nevertheless, it is not explicitly for-

bidden (it is not mentioned among the currently forbidden methods as it is, for instance, for microfilm, Art 9.4; ICZN, 1999, 2008, 2012). Retroactive changes in the current Code are a problem that should be corrected in future versions of the Code (eg. DUBOIS, 2010). Such problems are usually resolved by the Commission through its plenary powers by means of applications submitted (as in this case).

2) ARRIBAS (1997) is a valid publication, as it was published with an ISBN reference (ISBN 84-490-0830-1). The publication was produced with the purpose of permanent record and distribution (Art 8.1; ICZN, 1985, 1999, 2008, 2012), and must be differentiated from unpublished versions of Oscar Arribas' PhD Thesis (ARRIBAS, 1996), distributed to the members of the Thesis defense committee in December 1996, that obviously is not a publication (in the sense of the Example of Art. 9; ICZN, 1999, 2008, 2012 or Art 9(11) ICZN, 1985). The unpublished copy of the PhD Thesis shown in Fig. 2 of BUSACK *et al.* (2016), deposited in the University Library of the Universitat Autònoma de Barcelona on the 11<sup>th</sup> of March 1997, was part of the bureaucratic procedure for a PhD Thesis defense done in November 1996 (as can be seen in the external and internal covers shown in Fig. 2 of BUSACK *et al.*, 2016). There are even some minor differences with the final PhD Thesis defended in December 1996 (also unpublished in the sense of the Code) and obviously, with the published one as a book in microfiche in the following year (ARRIBAS, 1997).

3) The publication of the PhD Thesis (ARRIBAS, 1997; ISBN 84-490-0830-1) was produced and distributed by the Universi-

tat Autònoma de Barcelona, and exchanged with other University libraries and institutions (a minimum of 19 copies in 17 Universities or Museums; see "Institutional Holdings of Arribas' Thesis" in BUSACK *et al.*, 2016). Moreover, ARRIBAS (1997) publication containing the PhD Thesis was available by purchase (Art 8(a); ICZN, 1985; Art 8.1; ICZN, 1999, 2008, 2012) in the following address: [http://publicacions.uab.es/tesis/fitxa\\_web.asp?](http://publicacions.uab.es/tesis/fitxa_web.asp?ID=482)

ID=482, where it appears catalogued as a microfiche (microfitxa in Catalan) at a price of 13.34 €. The author received 12 copies that were distributed as a courtesy to several other European Lacertid specialists from Spain (Dr. Pedro Galan; Universidad de Coruña), Italy (Dr Gaetano Odierna, Università degli Studi di Napoli; Dr. Ettore Olmo, Università di Ancona), the United Kingdom (Dr. E.N. Arnold; Natural History Museum, London), Austria (Dr. Josef Eiselt and Dr. Werner Mayer, Naturhistorisches Museum Wien), Germany (Dr. Wolfgang Böhme, Zoologische Museum Alexander Koenig, Bonn; Josef Schmidtler, München) and Russia (Dr. Ilya S. Darevsky, Russian Academy of Sciences, S. Petersburg).

4) ARRIBAS (1997) PhD publication in microfiche includes, in addition to the new names, the statement of being a nomenclatorial act (gen. nov.) (Art 8.5.2; ICZN, 1985), the type species, complete diagnoses of both genera, all accepted species within each genus, *derivatio nominis*, distribution, detailed description and biogeography. The ARRIBAS (1997) PhD publication in microfiche can be read in a microfiche viewer (usually present in libraries), but can also be easily read using a stere-

omicroscope (binocular loupe). A facsimiled pdf scan of the whole publication (paper and microfiche) can be download from:

[https://www.academia.edu/28266852/Morfolog%C3%ADa\\_filogenia\\_y\\_biogeograf%C3%ADa\\_de\\_las\\_lagartijas\\_de\\_alta\\_monta%C3%B1a\\_de\\_los\\_Pirineos](https://www.academia.edu/28266852/Morfolog%C3%ADa_filogenia_y_biogeograf%C3%ADa_de_las_lagartijas_de_alta_monta%C3%B1a_de_los_Pirineos).

5) There is an Application submitted to the Commission (Case 3711) in April 2016, to be published in the Bulletin of Zoological Nomenclature, concerning the original publication of *Iberolacerta* and *Darevskia*. In this Application, we request to officially validate, in use of its plenary powers, ARRIBAS (1997) publication in microfiche as the nomenclatorial source for both names, because they were available when first published, even if not according with the Code currently in force. Pending potential publication in the Bulletin of Zoological Nomenclature for public evaluation of the case, we recommend that in the meantime (avoiding more confusion), ARRIBAS (1997) should be conserved provisionally as the authority for *Iberolacerta* and *Darevskia* instead of destabilizing the nomenclature and disrupting communication in Old World Lacertid taxonomy.

6) As recently suggested by ARRIBAS (2016), *Caucasilacerta* may be considered a *nomen nudum*, since the paragraph regarding the diagnosis is at some distance from the nomenclatorial act, among other problems. If this is considered as such, *Darevskia* would remain the valid name for the group. Again therefore, avoiding the use of *Caucasilacerta* seems preferable to prevent taxonomic instability, but this is still pending on the application presented to the Commission (Case 3711).

7) *Iberolacerta* has no synonymies and does not present nomenclatorial problems apart from the valid date of publication that is pending on a resolution by the ICZN (Case 3711). Therefore, regardless of the publication date of the genus' description, the name will still be *Iberolacerta*. Similarly, *Pyrenesaura* ARRIBAS, 1999 (a subgenus of *Iberolacerta*) was described in the Russian Journal of Herpetology (ARRIBAS, 1999), and is not affected by all these nomenclatorial disputes.

We applaud BUSACK *et al.* (2016) for their good intentions in attempting to resolve the confusion in the literature regarding the correct description date for *Darevskia*, and agree that authors need to be vigilant regarding potential synonyms for groups they intend to name. Nevertheless, we would like to also suggest that scientists who feel that widely used names need to be altered, should contact those involved prior to proposing name changes. In this way taxonomic instability may be avoided.

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