

ZOOSYSTEMATICA ROSSICA

Zoological Institute, Russian Academy of Sciences, St Petersburg • https://www.zin.ru/journals/zsr/ Vol. 33(2): 228–236 • Published online 23 September 2024 • DOI 10.31610/zsr/2024.33.2.228

NOMENCLATURE

Article 74.7.3 of the Code continues to destabilise zoological nomenclature: repeated lectotypification of *Lemmus obensis bungei* (Rodentia: Cricetidae)

Статья 74.7.3 Кодекса продолжает дестабилизировать зоологическую номенклатуру: повторная лектотификация *Lemmus obensis bungei* (Rodentia: Cricetidae)

D.A. Gapon & N.I. Abramson

Д.А. Гапон, Н.И. Абрамсон

Dmitry A. Gapon¹⁰, Zoological Institute, Russian Academy of Sciences, 1 Universitetskaya Emb., St Petersburg 199034, Russia. E-mail: tentatdag@gmail.com

Nataliya I. Abramson¹, Zoological Institute, Russian Academy of Sciences, 1 Universitetskaya Emb., St Petersburg 199034, Russia. E-mail: Nataliya. Abramson¹zin.ru

Abstract. In 2023, B. Kryštufek and G.I. Shenbrot published a paper in which they proposed to consider invalid 20 lectotype designations based on the specimens in the collection of mammals at the Zoological Institute of the Russian Academy of Sciences (St Petersburg). They also designated a lectotype for *Lemmus obensis bungei* Vinogradov, 1926. We argue that the authors' decision was based on an incorrect interpretation of Article 74.7.3 and some other Articles and Recommendations of the International Code of Zoological Nomenclature. The history of Article 74.7.3 is briefly reviewed to highlight its destabilising nature and to draw attention to this within the zootaxonomic community.

Резюме. В 2023 г. Б. Криштуфек и Г.И. Шенброт опубликовали статью, в которой предложили признать недействительными 20 лектотипов, хранящихся в коллекции млекопитающих Зоологического института РАН (С.-Петербург) и предложили новое обозначение лектотипа для *Lemmus obensis bungei* Vinogradov, 1926. В данной статье показано, что решение этих авторов основано на неправильной интерпретации статьи 74.7.3 и некоторых других статей и рекомендаций Международного кодекса зоологической номенклатуры. Кратко рассмотрена история статьи 74.7.3 с целью ещё раз обратить внимание зоологов-систематиков на её дестабилизирующий характер.

Key words: nomenclature, stability, lectotype, designation, Mammalia, Rodentia, Cricetidae, *Lemmus obensis bungei*

Ключевые слова: номенклатура, стабильность, лектотип, обозначение, Mammalia, Rodentia, Cricetidae, *Lemmus obensis bungei*

ZooBank Article LSID: FF1C2D96-4DEA-4388-AF8C-65F08C4E7552

Introduction

In 2023, B. Kryštufek and G.I. Shenbrot published a paper in which they proposed to consider invalid 20 lectotype designations by Baranova & Gromov (2003) based on the specimens in the collection of mammals at the Zoological Institute of the Russian Academy of Sciences, St Petersburg (ZISP). The nominal taxa involved are from the subfamilies Cricetinae and Arvicolinae: *Arvico*- la arvalis var. slowzowii Polyakov, 1881, A. macrotis Radde, 1861, A. middendorffii Polvakov, 1881, Cricetulus barabensis ferrugineus Argyropulo, 1941, C. dichrootis Satunin, 1903, Eremiomys przewalskii Büchner, 1889, Evotomys rutilus uralensis Kolyushev, 1936, Georychus rufescens Eversmann, 1850, Lemmus flavescens Vinogradov, 1925, L. obensis bungei Vinogradov, 1924, L. obensis novosibiricus Vinogradov, 1924, Microtus (Stenocranius) gregalis unguiculatus Vinogradov, 1935, M. (S.) slowzovi var. revicauda Kastchenko, 1901, M. hyperboreus Vinogradov, 1933, M. limnophilus Büchner, 1889, M. michnoi Kastschenko, 1910, M. middendorffii uralensis Skalon, 1935, M. strauchi Büchner, 1889, M. strauchi var. fuscus Büchner, 1889, and M. tianschanicus Büchner, 1889. A number of other lectotype designations proposed by Baranova & Gromov (2003) for other nominal taxa of the family Cricetidae, were not mentioned, although they were designated in exactly the same way as those listed above.

In two cases, Kryštufek & Shenbrot (2023) are correct: the lectotype designations by Baranova & Gromov (2003) for *Microtus strauchi* and *M. strauchi* var. *fuscus* are invalid, but under Article 74.1.1 rather than Article 74.7.3, as the lectotypes were already designated by Hoffmann (1996) (specimens ZIN 2080 and ZIN 1907, respectively). Apparently, Hoffmann's publication was unknown to Baranova and Gromov, possibly because the book containing it is not in the library of ZISP.

In addition, Kryštufek & Shenbrot (2023) designated a lectotype for *Lemmus obensis bungei* Vinogradov, 1926 (specimen No. 11025 from Sagastyr' Island), to replace the previously – and, in their opinion, invalidly – designated lectotype (specimen No. 11028 from "Mostakh" [Muostakh] Island). They argued that the lectotype designations in the publication by Baranova & Gromov (2003) violate the requirements of the amended Article 74.7.3 (Declaration 44; ICZN, 2003) of the International Code of Zoological Nomenclature (hereinafter the Code) (ICZN, 1999), namely, that the lectotypes were not accompanied by an express statement of deliberate designation. We do not agree with the interpretation of the Code by Kryštufek & Shenbrot (2023) and provide our arguments in favour of the original lectotype designations by Baranova & Gromov (2003).

Lectotypification of Lemmus obensis bungei

In 2003, G.I. Baranova and I.M. Gromov published "Catalogue of type specimens in the collection of the Zoological Institute. Mammalia. No. 4. Rodentia" in Russian. In this publication, the authors designated the lectotypes for 42 nominal taxa represented in the collection as series of syntypes. The authors did not provide an individual statement of intent for each lectotype designation. Instead, they provided a short statement in the introduction, also contained in the abstract, that, we believe, fulfill the requirement in the Code of an express statement of deliberate designation: "В случае наличия в коллекции серии синтипов выделяется лектотип [If there is a series of syntypes in the collection, a lectotype is designated]". In addition, the introduction states: "в случае лектотипа указывается публикация, отсутствие ссылки означает, что лектотип впервые выделен в настоящем каталоге [in the case of a lectotype, the publication is indicated; the absence of a reference means that the lectotype was first designated in this cataloguel". which makes it possible to identify all new cases of lectotypification in the publication. We believe that these statements are fully consistent in meaning with the acceptable wording "lectotype hereby designated" provided as an example of deliberate action under Article 74.7.3 of the Code. The presence of such a statement in the introduction strongly suggests that the lectotypes were not accidentally or undeliberately designated, but that the act of designation was clearly intentional. The Code states that lectotypes cannot be designated collectively (Article 74.3). However, it does not specify that the statement of deliberate designation must be repeated for each lectotype designation within the publication and that it may not be provided only once for all lectotype designations, for example, in the preface or the "Material and methods" section, followed by the indication of the designated lectotype for each individual nominal taxon. This issue was widely discussed in the press after the release of the Fourth edition of the Code, and resulted in publication of Declaration 44 (ICZN, 2003) by the International Commission on Zoological Nomenclature with an amendment to Article 74.7.3 of the Code (online version of the Code with all amendments included: https://code.iczn.org/) (see below for details).

Additional arguments by Kryštufek & Shenbrot (2023) also do not withstand criticism. Their claim that the subspecies was described in 1924 is incorrect. In 1924, Vinogradov first mentioned the name L. obensis bungei as follows: "It is necessary to say also that at the mouth of tile Lena River occurs a form of lemming (L. obenis bungei, Vinogr. in litt.) which has charactersintermediate between true Lemmus obensis and L. obensis novosibiricus. The above-described form of Lemmus has some superficial resemblance to Dicrostonyx" (Vinogradov, 1924: 189). Kryštufek & Shenbrot (2023) argue that this naming meets the requirements of Articles 11 and 12 of the Code, specifically, the name was published in a published work (as required by Article 8), in the Latin alphabet, as a trinomen (as per Article 11), and was accompanied by a definition (Article 12). However, according to the Glossary, which is an integral part of the Code, a definition is "A statement in words that purports to give those characters which, in combination, uniquely distinguish a taxon". In Vinogradov (1924), no characters of L. obensis bungei are provided, and the mere statement that the subspecies is an intermediate form between two other taxa and resembles a third taxon cannot be considered a definition. Therefore, according to Article 12.1, the name L. obensis bungei Vinogradov, 1924 is unavailable. In a later publication, Vinogradov made the name available by listing the distinguishing features of the corresponding nominal taxon (Vinogradov, 1926: 56). Therefore, according to Article 21, the date of publication of this name is 1926. It is also worth noting that Kryštufek and Shenbrot incorrectly cited 1925 for this second paper by Vinogradov. The paper was published in Volume 26 of "Ezhegodnik Zoologicheskogo muzeya Akademii nauk Soyuza Sovetskikh Sotsialisticheskikh Respublik" ("Annuaire du Musée Zoologique de l'Académie des Sciences de l'Union des Républiques Sovietiques Socialistes"), on pages 51-73. Printed copies of this volume indicate the year 1925, but it was actually printed in April 1926 (Asanovich et al., 2006). According to Articles 21.3 and 21.4, the date of publication of this Vinogradov' paper should be accepted as 30 April 1926.

Referring to the lectotype designation of *Lemmus obensis bungei*, Kryštufek and Shenbrot claimed that "Baranova and Gromov (2003) did not explain why they ignored the restriction of the type locality in Vinogradov (1925) which was otherwise accepted by subsequent authors". They mean that Vinogradov designated the mouth of the Lena River as the type locality of this subspecies in 1924, and allegedly limited the type locality to Sagastyr' Island in 1926.

Since the name L. obensis bungei Vinogradov, 1924 is unavailable, it does not matter how exactly its type locality was delineated. The publication by Vinogradov (1926) includes a list of specimens examined for the description of the subspecies (see Fig. 1), which corresponds to all specimens listed in the catalogue by Baranova & Gromov (2003) as the lectotype and paralectotypes. In this publication, Vinogradov specified the type locality as "The lower course of the Lena River (Sagastyr' Island, Khara-Ulakh Range)", not only Sagastyr' Island, as asserted by Kryštufek & Shenbrot (2023). The misconception that the type locality was limited to Sagastyr' Island probably originates from or is reinforced by a passage in a book by Ognev (1948: 465): "The place from which the type was described; where the type is stored: lower reaches of the r[iver]. Lena, Sagastyr', Khara-Ulakh okr. [okrug – district?]; type in the collection of the Zoological Museum of the Academy of Sciences". It may even seem that Ognev thereby designated a specimen from Sagastyr' Island as a lectotype; however, the type locality he specified does not definitively specify a single specimen from the type series. Firstly, Sagastyr' Island is situated to the west of the lower reaches of the Lena River, whereas the Khara-Ulakh Range (or District)* is located in the eastern part of this region. Secondly, the type series comprises not one but four specimens from Sagastyr' Island. According to Articles 73.2.3 and 76.1, the type locality of a nominal species-group taxon is the geographical location where

^{*} As far as we know, the Khara-Ulakh Okrug [District] did not exist; however, since 1929, there has been the Khara-Ulakhsky Nasleg [an administrative division type of the Yakut ASSR and the Republic of Sakha], with its centre in the village of Nayba, which is located 170 km southeast of the town of Tiksi, the administrative centre of the Bulunskiy Ulus [District].

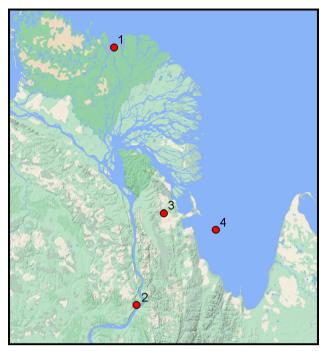


Fig. 1. Collecting localities of the type series of *Lemmus obensis bungei* Vinogradov, 1926. 1, Sagastyr' Island; 2, Bulun Village; 3, Khara-Ulakh Range; 4, Muostakh Island [lectotype designated by Baranova & Gromov (2003)].

its name-bearing type was captured, collected, or observed; if the name-bearing type is composed of syntypes originating from two or more localities, then the type locality encompasses all of the places of origin. Consequently, it does not matter how the type locality was stated in the original publication; it is determined by all the localities from where syntypes were collected. A type locality restriction without expressly designating a lectotype is not compliant with the Code, and a nominal taxon cannot be taxonomically restricted by such a method. Finally, the discrepancies in this case pertain to Muostakh Island [the specimen from which is designated as a lectotype by Baranova & Gromov (2003)] and Bulun Village, listed for syntypes but not explicitly mentioned as part of the type locality by Vinogradov (1926). The omission of these references may be attributed to their close proximity to the Khara-Ulakh Range, which is specified as part of the type locality.

This also applies to Kryštufek & Shenbrot's (2023) assertion that the authors did not follow Recommendation 74A, which states that the lectotype should give weight to previously accepted

taxonomic restrictions of the application of the name, i.e. with restrictions of the taxon circumscription. There were no generally accepted taxonomic restrictions on the application of the name L. obensis bungei before the designation of a lectotype for it by Baranova & Gromov (2003). Ostensibly accepted by subsequent authors, the restriction of the type locality by Vinogradov (1926), as referenced in Kryštufek & Shenbrot (2023), pertains to the book of Ognev (1948) mentioned earlier, as well as to Pavlinov & Rossolimo (1987). In the latter publication, which is a catalog of mammals of the Soviet Union, the type locality for L. obensis bungei Vinogradov, 1924 (nomen nudum), is given erroneously as the Yakut Autonomous Soviet Socialist Republic, Bulunskiy District, Sagastyr', and it is indicated that the type is stored in ZISP; for L. obensis bungei Vinogradov, 1926, data on the type locality and the type specimens are not given at all. The paper by Abramson et al. (2022), cited by Kryštufek & Shenbrot (2023), stating that the Sagastyr' and Muostakh islands are inhabited by different clades of L. sibiricus (Kerr, 1792), was published 19 years after the catalogue by Baranova & Gromov (2003), and its authors accept the lectotype of L. obensis bungei designated in this catalogue.

The same applies to the remark regarding Recommendation 74G ("The designation of lectotypes should be done as part of a revisionary or other taxonomic work to enhance the stability of nomenclature, and not for mere curatorial convenience"). Not following this recommendation cannot be considered as a basis for invalidating the designation of the lectotypes, since according to Article 89.2, recommendations, examples, and all titles and appendices do not form a part of the legislative text of the Code. It also can hardly be accepted that catalogues of type specimens are compiled only for the convenience of collection curators. The designation of lectotypes in such catalogues serves a different purpose than merely providing convenience to curators; it aims to reduce the number of type specimens, which often exhibit a degree of variability. This enhances the certainty of the nomenclatural type. It should also be noted that one of the coauthors of the catalogue in question was I.M. Gromov, not just a curator of the collection, but a recognised authority in the field of rodent taxonomy.

It is particularly surprising that Kryštufek and Shenbrot attempted to designate a new lectotype without having seen it at the time. They mention that they saw specimen ZIN "11,025" in October 2014. However, it should be noted that in the nearly decade that has passed since then, this specimen may have been damaged or even lost. Article 74.7.3 was intended precisely as an attempt (unfortunately, unsuccessful) to prevent such designations (see below), as a result of which damaged specimens being unsuitable for identification purposes or specimens that alter the established species concept sometimes become lectotypes.

As a result of the publication by Kryštufek & Shenbrot (2023), two alternative lectotype designations exist for Lemmus obensis bungei, and some zoologists have considered the lectotype designations by Baranova & Gromov (2003) as invalid (pers. comm. from some colleagues of the second author). This practice contradicts Article 74.1.1, which states that the valid designation of a lectotype fixes the status of the specimen as the sole name-bearing type and no later designation of a lectotype has any validity. All this certainly creates confusion and contributes to the destabilisation of nomenclature. This case is one of many troubles that have emerged from the "Pandora's box" opened back in 1999 when Article 74.7.3 was introduced into the Code.

We consider the lectotype proposal by Kryštufek & Shenbrot (2023) as invalid, because the lectotype was validly designated by Baranova & Gromov (2003). This statement could close the issue, but it is crucial to comprehend why such an error could occur.

History of Article 74.7.3

In the Third edition of the Code (ICZN, 1985), Article 74 consisted of four sections: a, b, c, and d. In the Fourth edition, the numbering changes and the former Article 74a becomes Article 74.1 with some modifications; Article 74a(I) becomes 74.1.1; 74a(II) – 74.1.2; 74a(III) – 76.2; 74a(IV) – 74.1.3; 74a(V) – 74.2; Article 74b becomes modified Article 74.6; 74b(I) – 74.6.1.1; 74b(II) – 74.6.1.2; 74(c) – 74.4; 74(d) – 74.3, with the same example; recommendations 74A–74F remain largely unchanged. Article 74.5 appears for the first time and is a more specific and expanded statement from the former Article 74a "... any author may designate one of the syntypes as the lectotype, by the use of that term or an equivalent expression (e.g., 'the type')", it is now applicable to the designations of lectotypes made before 2000. Article 74.7 was also introduced in the Fourth edition of the Code. Article 74.7.1 requires the use of the term "lectotype" or its exact translation but prohibits the use of the term "type"; Article 74.7.2 requires that the lectotype designation contain information sufficient to enable recognition of the designated specimen. The original version of Article 74.7.3 is as follows: "[74.7.] To be valid, a lectotype designation made after 1999 must <...> [74.7.3.] contain an express statement of the taxonomic purpose of the designation".

In November 2000, shortly after the publication of the Code, W.J. Pulawski has addressed the International Commission on Zoological Nomenclature (hereinafter the Commission) with a proposal to remove Article 74.7.3. He argued that the strict application of the Article, which requires justification for the obvious and repetitive statements when several lectotypes are designated within a single revisionary work, would destabilise zoological nomenclature (ICZN, 2001). Following the initial proposal, W.J. Pulawski and I.M. Kerzhner submitted a formal proposal to delete the Article to the Commission Secretariat on 25 February 2001. This proposal has been published along with the discussion in the journal "Bulletin of Zoological Nomenclature" in a significantly abbreviated form, omitting some important arguments (Pulawski & Kerzhner, 2001). A number of zoologists supported the proposal, while others strongly disagreed with it (ICZN, 2001). This proposal was mainly opposed in the discussion by the members of the Editorial Committee of the Fourth edition of the Code O. Kraus, F.C. Thompson and R.K. Tubbs, and especially by the Committee Chairman W.D.L. Ride. The main point of this objection was the following statement: Article 74.7.3 provides some rigour in the lectotypification process to prevent inappropriate designations made purely for curatorial purposes without proper knowledge of the taxonomic and nomenclatural consequences. In 2001, Pulawski and Kerzhner also published in the journal "Zoosystematica Rossica" an extended version of the proposal to remove the Article (Pulawski & Kerzhner, 2001). The main points of this publication are as follows.

In Article 74.3, it is unclear whether the statement must be repeated for every lectotype designated or if it can be presented only once in a given work, as is the common practice for similar repetitive statements (e.g., "All lectotypes are deposited..." or "...are provided with an additional red label...").

Article 74.7.3 requires substantiation of the obvious. There is no mechanism to protect against inappropriate lectotype designation. For example, specimens unsuitable for identification purposes can be designated when better specimens are available, or a lectotype can be selected from a mixed series, changing the established idea of the species. The formal requirement of the Article adds nothing to the quality of the designation of lectotypes, and there is no need to further justify the usual typification process, the importance of which is already stated in Article 61.1. For the same reason and with the same effect, the Code might also require justification for the taxonomic assignment of each new holotype and each new taxon.

Some believe that the intention of the Article is to prevent lectotype designations by non-specialists or for curatorial purposes. However, the Code does not specify that lectotypes should be designated by a specialist, nor does it prevent designations made for the sole purpose of increasing the number of lectotypes in an institutional or personal collection. (To this, we can add that, as a rule, the designation of lectotypes decreases the number of name-bearing types housed in a particular collection). A statement like "designated to increase stability of nomenclature" could easily be added in such cases. The Code, in fact, supports the publication of lists of types. Recommendation 72.F.4 states "Every institution in which name-bearing types are deposited should ... publish lists of name-bearing types in its possession or custody".

Pulawski and Kerzhner checked the volumes of the "Zoological Record" from 1978 to 2000 and found that it lists a total of 10,123 publications in which lectotypes were designated. The average annual number of these designations was calculated as 460, with a tendency to increase each year. They also scrutinised 60 papers that appeared between 2000 and January 2001 and found that 50 (83%) of them did not contain a statement of taxonomic purpose. Extrapolating from these data, they concluded that in the year 2000 alone, at least 600 publications and 1,600 lectotype designations did not comply with Article 74.7.3 (at a rate of 50 publications and 130 designations per month).

Pulawski and Kerzhner have concluded that Article 74.7.3 contains nothing positive for nomenclature and is destabilising. They concluded that this situation needed to be corrected urgently and that the elimination of the Article from the Code would be the only reasonable solution. This change would not affect any other part of the Code, including the Recommendations. If twothirds of the Commissioners agree that the deletion of the Article is not a major change to the Code, the Commission may immediately publish an appropriate Declaration (Code, Articles 78.3.2, 80.1; Constitution, Article 16.1.1). This would eliminate the current chaos and save zoologists and the Commission unnecessary work.

They asked the Secretariat to organize a Commission vote to determine whether the proposed deletion of Article 74.7.3 was a minor change. If this proposal is not supported by two-thirds of the Commission members, they requested that the procedure for making significant changes to the Code described in Article 16.1 of the Constitution be applied.

On 25 February 2001, the proposed amendment to the Code was sent to the Commission. However, there was no vote that the proposed changes did not constitute a major change but merely clarified a provision of the Code. Pulawski & Kerzhner (2001) therefore called on all zoologists to send a short message to the Secretariat of the Commission indicating their views on the proposal. Over 100 zoologists from around the World have sent responses to the Commission. An overwhelming majority of them support the deletion of the Article (105 in favour of deletion, one against deletion).

Later on, W.J. Pulawski, I.M. Kerzhner, D.J. Brothers, and N.L. Evenhuis (ICZN, 2002), fearing the risk that the Commission might not recognise the proposal as a minor change, suggested the following amendments: (1) that the wording of Article 74.7.3 be changed to: "contain an express statement of deliberate designation (merely citing a specimen as 'lectotype' is insufficient)"; (2) that the following Example be added directly

below Article 74.7.3: "Example: A statement such as 'lectotype hereby designated', 'lectotype by present designation', 'I choose specimen X as lectotype' would fulfil this requirement, but 'lectotype: specimen X' would not"; (3) add the following Recommendation: "Recommendation 74G: Not merely for curatorial purposes. The designation of lectotypes should be done as part of a revisionary or other taxonomic work to enhance the stability of nomenclature, and not for mere curatorial convenience"; and (4) that these changes be backdated to include all publications after 31 December 1999. This draft proposal was sent to the Commissioners for their opinion on whether they considered the proposal to include a minor change to the Code or not. A count of votes on 22 August 2002, revealed that 20 Commissioners supported the proposal, three opposed it, and five did not vote. Voted against: O. Kraus, H.G. Cogger, and S. Mawatari. Their objections and the draft were published in the "Bulletin of Zoological Nomenclature" (ICZN, 2002) to allow further comments from the Commission and the zoological community at large before it is brought to a formal vote. Under Articles 78.3 and 80.1 of the Code, Declaration 44 was drafted by the Executive Secretary and circulated to the Commission for approval on 22 July 2003. The Declaration was approved and ratified on 13 May 2007 by the International Union of Biological Sciences (IUBS) (ICZN, 2003).

Discussion

It is difficult for us to conceive that contemporary authors can inadvertently designate lectotypes without intention and awareness of their actions. If any author in a publication uses the term "lectotype", the meaning of which is now well known to all taxonomists, for a taxon whose type series was previously represented by syntypes, then, from our point of view, this in itself means that the author deliberately chose one specimen from among the syntypes and intended to designate it as the only nomenclatural type of the corresponding nominal taxon. It seems to us that no formalised rules, including the requirement of an express statement of deliberate designation, can ensure that the specimens that are most suitable for this in all senses are designated as lectotypes. Requiring an express statement of deliberate designation is an unnecessary complication of lectotypification. The modern Code is a very complex document with many rules. Many taxonomists (as practice shows) find it challenging to remember all the rules. This also applies to the requirement to use the phrase "lectotype designated here" when designating lectotypes.

Furthermore, the current wording of Article 74.7.3 is unclear in relation to Article 74.3. Article 74.3 states that each designation must be individual; Article 74.7.3 requires that "[to be valid, a lectotype designation made after 1999 must] contain an express statement of deliberate designation". Does this imply that an express statement of deliberate designation must be exclusively individual? One criticism of the original formulation of Article 74.7.3 was that if multiple lectotype designations were made in a single publication, a formal statement of the taxonomic purpose of the lectotype designation would have to be repeated each time (ICZN, 2001; Pulawski & Kerzhner, 2001). However, this aspect was not clearly worded in the new edition of the Article, which is now causing discrepancies. It is evident to us that Articles 74.3 and 74.7.3 serve different purposes. Article 74.3 states that "Lectotypes must not be designated collectively by a general statement; each designation must be made specifically for one nominal taxon". The purpose of this Article is clearly stated: the designation of each lectotype "must have as its object the definition of that taxon". The word "definition", which is defined in the Glossary, might be misleading in this context. To comprehend this formulation, it is imperative to undertake certain analytical actions. A lectotype must be designated for a nominal taxon whose name, as per Articles 12 and 13, is related to a specific description and diagnosis, i.e., "a statement in words that purports to give those characters which differentiate the taxon from other taxa with which it is likely to be confused". That is, a specific lectotype designation must have as its object (i.e., must be related to) the description or diagnosis of a specific nominal taxon. The stated purpose of Article 74.7.3 (ICZN, 2001) is to discourage the accidental or inappropriate designation of lectotypes by requiring an express statement of deliberate designation. The direct association of a lectotype with the definition of a taxon and statement of a deliberate lectotype designation serve different and

non-subordinate purposes. Such a statement may well be collective to save the efforts of authors and space in publications. It is quite obvious that, by collectively expressing a statement of deliberate designation, the author knows which lectotypes he has designated in the publication and for what purpose. Likewise, Article 16.4.2 does not mandate the separate statement of intent regarding the deposition of holotypes or syntypes in a collection, and a statement specifying the name and location of that collection. In practice, if there is only one collection, its name is collectively provided for all types in the publication. It is guite obvious that Pulawski and Kerzhner, the authors of the new edition of Article 74.7.3. did not intend for it to be subordinate to Article 74.3. This is also evident from the case considered in this paper. The editor of the catalogue by Baranova & Gromov (2003) was I.M. Kerzhner, who approved a collective express statement of deliberate designation of lectotypes in the introduction to this catalogue. However, this meaning of Articles 74.3 and 74.7.3 is not obvious to everyone, as shown not only by the paper of Kryštufek & Shenbrot (2023) (although they may have missed the statement of deliberate designation in the introduction), but also by the review of this paper. According to an anonymous reviewer, "If the lectotype designations were invalid, then less because Art. 74.7.3 was violated, rather because Art. 74.3 was violated. This seems to move away from Art. 74.7.3, and from a need to reconsider the content of the legal text of this Article". If we assume that Kryštufek & Shenbrot (2023) unintentionally omitted the statement of deliberate lectotypes designations that is essentially repeated three times in the summary and introduction of the book by Baranova & Gromov (2003) (who really reads introductions?), then we still have to admit that the discussed case of repeated lectotypification would not have taken place if Article 74.7.3 had not appeared in the Fourth edition of the Code.

We believe that there are two ways to correct the destabilising nature of Article 74.7.3: either to exclude it from the Code in accordance with the original proposal by Pulawski and Kerzhner and to the opinions expressed by the majority of zoologists at that time (which we consider preferable), or to clearly indicate in Article 74.7.3 its connection with Article 74.3, i.e. the admissibility of a collective statement of intentional designation, which is deduced from the purposes and meaning of these Articles but is not apparent from their current wording.

Conclusions

In anticipation of the forthcoming Fifth edition of the Code, we would like to once again highlight the concern regarding the inclusion of Article 74.7.3 as currently worded. This Article, which has remained in the Code due to the insistence of some former members of the Commission, despite the opinion of the zoological community, represents an unnecessary formalisation and complication of the Code. It does not prevent the careless designation of lectotypes because it only requires a simple formal phrase "lectotype hereby designated", which by itself cannot serve as a guarantee of a nomenclatural act done consciously and intentionally. Furthermore, Article 74.7.3 continues to cause instability in zoological nomenclature. The Article can serve as an ostensible justification for redesignating lectotypes when it is convenient for the authors or when they were unable to detect a statement of deliberate designation, as evidenced by the publication of Kryštufek & Shenbrot (2023). If Article 74.7.3 is retained in the new edition of the Code, its wording should be made extremely clear regarding the cases of multiple designations of lectotypes. This clarity is essential to prevent instances of repeated lectotypification. similar to that discussed in this paper.

Acknowledgements

We are very grateful to Thomas Pape (the President of the International Commission on Zoological Nomenclature), the anonymous reviewer, and the editors of this paper for their valuable comments, which helped us to enhance the quality of the manuscript. The work was conducted within the framework of State Research Project No. 122031100272-3.

References

Abramson N., Petrova T. & Dokuchaev N. 2022. Analysis of "historical" DNA of museum samples resolve taxonomic, nomenclature and biogeography issues: case study of true lemmings. *Biological Communications*, **67**: 340–348.

- Asanovich T.A., Grozdilova L.P. & Kerzhner I.M. 2006. Publications of the Zoological Institute, St. Petersburg. 1. "Ezhegodnik" and "Trudy". Zoosystematica Rossica, 15(2): 195–213. https://doi. org/10.31610/zsr/2006.15.2.195
- Baranova G.I. & Gromov I.M. 2003. Gryzuny (Rodentia). In: Kerzhner I.M. (Ed.). Katalog tipovykh ekzemplyarov kollektsii Zoologicheskogo instituta RAN. Mlekopitayushchie (Mammalia) [Catalogue of type specimens in the collection of the Zoological Institute. Mammalia], 4. St Petersburg: Zoological Institute of the Russian Academy of Sciences. 100 p. https://www.zin.ru/labs/theriology/collections/ catalog/catalog_zin_mammalia_is4_2003.pdf
- Hoffmann R.S. 1996. Noteworthy shrews and voles from the Xizang-Qinghai Plateau. In: Genoways H.H. & Baker R.J. (Eds). A memorial volume honoring Dr. J. Knox Jones, Jr.: 155–168. Lubbock: Museum of Texas Tech University.
- ICZN International Commission on Zoological Nomenclature. 1985. International Code of Zoological Nomenclature. Third edition adopted by the XX General Assembly of the International Union of Biological Sciences. London: International Trust for Zoological Nomenclature. xx + 338 p.
- ICZN International Commission on Zoological Nomenclature. 1999. International Code of Zoological Nomenclature. Fourth edition adopted by the International Union of Biological Sciences. London: International Trust for Zoological Nomenclature. xxix + 306 p.
- ICZN International Commission on Zoological Nomenclature. 2001. Comments on Article 74.7.3 of the Code (requirement for an express statement of the taxonomic purpose of a lectotype designation), including a proposal that it should be revoked. *Bulletin of Zoological Nomenclature*, **58**(2): 133–140.
- ICZN International Commission on Zoological Nomenclature. 2002. Draft proposal to emend

Article 74.7.3: request for comments from the Commission and zoological community. *Bulletin of Zoological Nomenclature*, **59**(4): 278–280.

- ICZN International Commission on Zoological Nomenclature. 2003. Declaration 44. Amendment of Article 74.7.7. Bulletin of Zoological Nomenclature, **60**(4): 263.
- Kryštufek B. & Shenbrot G.I. 2023. The name-bearing type is essential for the objective identification of a taxonomic name: the message from the lectotypification of Lemmus obensis bungei. *Mammalia*, 87(3): 1–7. https://doi.org/10.1515/mammalia-2023-0010
- Ognev S.I. 1948. Gryzuny (prodolzhenie) [Rodents (continuation)]. Zveri SSSR i prilezhashchikh stran (zveri Vostochnoy Evropy i Severnoy Azii) [Mammals of the USSR and adjacent countries (mammals of Eastern Europe and Northern Asia)], 6. Moscow – Leningrad: Publishing House of the USSR Academy of Sciences. 559 p. + 12 maps. (In Russian).
- Pavlinov I.Ya. & Rossolimo O.L. 1987. Sistematika mlekopitayushchikh SSSR [Systematics of the mammals of the USSR] In: Sokolov V.E. (Ed.). Sbornik trudov Zoologicheskogo muzeya MGU [Archives of Zoological Museum of Moscow State University], 25: 1–285. Moscow University Publishing House.
- Pulawski W.J. & Kerzhner I.M. 2001. Article 74.7.3 of the Code: proposed deletion. *Zoosystematica Rossica*, **10**(1): 1–7.
- Vinogradov B.S. 1924. Two new interesting lemmings from Siberia. *The Annals and Magazine* of natural History, 14(79): 186–189. https://doi. org/10.1080/00222932408633106
- Vinogradov B.S. 1926. Materials for the systematics and the morphology of the rodents. III. Remarks on the classification of Palaearctic lemmings of the genus Lemmus. *Ezhegodnik Zoologicheskogo muzeya Akademii nauk Soyuza Sovetskikh Sotsialisticheskikh Respublik*, (1925), **26**: 51–73. (In Russian).

Received 22 May 2024 / Accepted 17 September 2024. Editorial responsibility: D.A. Dmitriev & A.A. Przhiboro