



Nomenclatural note

Nomenclature of Cretaceous birds from Romania

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The nomenclature for some avian fossils from the Cretaceous of Romania is analysed. The valid names associated with the holotype specimen, left femur, distal fragment (MTCO-P 1637) are *Palaeocursornis corneti* Kessler & Jurcsák, 1984, *Palaeocursornis* Kessler & Jurcsák, 1986, Palaeocursornithidae Jurcsák & Kessler, 1988, and Palaeocursornithiformes Kessler & Jurcsák, 1986. The valid names associated with the holotype specimen, right humerus, distal fragment (MTCO-P 7896) are *Eurolimnormis corneti* Kessler & Jurcsák, 1986, *Eurolimnormis* Kessler & Jurcsák, 1986, Eurolimnormithidae Kessler & Jurcsák, 1986, and Eurolimnormithiformes Bock & Bühler, taking precedence from this paper.

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1. Introduction

In a series of papers Kessler & Jurcsák (Kessler & Jurcsák, 1984, 1986; Jurcsák & Kessler, 1985, 1987, 1988; Kessler, 1984, 1987) described, analysed and redescribed a number of avian fossil bones from the Cretaceous of Romania. In this series of publications these workers unfortunately created a serious nomenclatural problem which must be clarified before any further work is done on these taxa. Unraveling these names has been made more difficult because the publication dates of the papers by Kessler & Jurcsák are very close to each other, and because the manuscripts were apparently completed in an order different from that in which they were published. The result is that some of their citations to their own papers and to the different names of these taxa are to years that differ from their actual publication. Furthermore, it is not possible, without a great deal of work, to determine the exact date of publication of these papers, and hence the exact priority of the same name used in different publications, such as Kessler (1984) and Kessler & Jurcsák (1984), cannot be ascertained readily. The same name was used sometimes for different taxa according to the exact wording employed in these papers which was most likely not the intention of Kessler & Jurcsák, but did result from their inattention to the rules of zoological nomenclature. Hence it is not always clear whether names used in several of these papers are available because of some lack of proper descriptions and frequent lack of indication to the taxon to which a particular species-group or genus-group name referred. In this paper, we will be concerned strictly with these nomenclatural problems, that is with nominal groups, and not at all with any systematic questions associated with these fossils. We will assume that two

nominal species-group taxa exist which are identified by the holotype specimens. Fortunately the two holotypes are clearly indicated. We will also assume that these nominal species belong to different nominal genera, families and orders.

The nomenclatural morass in the papers by Kessler & Jurcsák is most complicated, and we appreciate the difficulties that the reader may have in following our treatment. It is almost impossible to comprehend the exact status of the names used in the papers and the relationships between these without having all of the Kessler & Jurcsák papers to hand while reading our analysis. We believe that we have traced through this tangle of names correctly. If we have overlooked some aspects of their history, we do not believe that this will affect our nomenclatural conclusions. All taxonomic matters associated with the identification and affinities of these fossils will be left to experts in paleornithology.

Initially, Kessler & Jurcsák (1984) described an assemblage of fossil bones as *Limnornis corneti*. After the Third Symposium on Mesozoic Terrestrial Ecosystems in 1984, Herr S. Eck (Natural History Museum, Dresden, Germany) pointed out to them that the generic name *Limnornis* Kessler & Jurcsák, 1984 was preoccupied by *Limnornis* Gould, 1830 (Kessler and Jurcsák, 1986, p. 290; Kessler, 1987). Moreover, upon further analysis, Kessler & Jurcsák concluded that the original sample of fossil bones contained an assemblage of two different taxa, and in several papers, they redescribed these taxa and provided several new names for them. Unfortunately, care was not given to the names attached to the original holotype (MTCO-P 1637) and to the new, second holotype (MTCO-P 7896). In the course of these redescrptions, Kessler & Jurcsák created the serious nomenclatural problem alluded to above.

We deal with these problems under the headings of what we believe to be the currently valid names for the two species-level taxa contained in the original sample of fossil bones, assuming that these are recognizable taxa and correspond to the holotypes. We deal separately with names in the species-group, genus-group and family-group. Although the Code of Zoological Nomenclature does not cover order-group names, we also discuss these.

If we may offer the conclusions to our paper in the beginning, we plea with workers describing new taxa of animals to learn the major rules in the Code of Zoological Nomenclature (ICZN, 1985), to check the available names in the standard sources, especially for genus-group names, and to give close attention to the names associated with each type, be it the holotype to which the species-group name is attached, the type species of the genus-group name, or the type genus of the family-group name. If they are not certain of the rules, they should contact members of the International Commission on Zoological Nomenclature through its Secretariat (currently Dr. Philip Tubbs) or if it is an avian name, they should contact the Standing Committee on Ornithological Nomenclature through its Chair (currently Professor Walter J. Bock).

2. *Palaeocursornis corneti* Kessler & Jurcsák, 1984

Under this heading we treat the names based on the holotype specimen, left femur, distal fragment (MTCO-P 1637 in the collection of the Muzeul Tarii Crisurilor Oradea-Paleontology; see Kessler & Jurcsák, 1984, p. 397). This specimen was originally described as *Limnornis corneti* Kessler & Jurcsák, 1984, p. 397, in the family Limnornithidae and the order Limnornithiformes. Earlier uses of the names *Limnornis corneti* and Limnornithidae Kessler (1984) are

presumably not available for nomenclature because these are not accompanied in this paper by the necessary descriptions (assuming that Kessler, 1984 predates Kessler & Jurcsák, 1984). Subsequently (following the 1984 Third Symposium on Mesozoic Terrestrial Ecosystems) as noted above, Herr S. Eck pointed out to these authors that the generic name *Limnornis* Kessler & Jurcsák, 1984 is preoccupied by *Limnornis* Gould, 1839 (see comments in Kessler & Jurcsák, 1986, p. 289; Kessler, 1987) and hence is a junior homonym and not available for zoological nomenclature.

Subsequently, Jurcsák & Kessler (1985, p. 138) proposed the combination *Palaeolimnornis corneti* as a replacement name for *Limnornis corneti* Kessler & Jurcsák, 1984, although they do not appear to give any reason in this paper why they did this. The next year, Kessler & Jurcsák (1986, p. 289) mentioned again that their name *Limnornis* was preoccupied and proposed the name *Eurolimnornis corneti* Kessler & Jurcsák, 1986, p. 290, as a replacement name for *Limnornis corneti*. But this replacement name is attached to a different type specimen as mentioned below, resulting in a confusion between nominal and taxonomic taxa associated with *Limnornis corneti*. No mention was made in this paper that in the previous year they had proposed *Palaeolimnornis corneti* as a replacement name aside from stating that “*Palaeolimnornis corneti* Jurcsák & Kessler, 1985” is a synonym of *Eurolimnornis corneti* Jurcsák & Kessler, 1986. (Note that they are in error in their citation to Kessler & Jurcsák, 1985; it should be Jurcsák & Kessler, 1985). Moreover no reasons are given as to why they chose to use *Eurolimnornis* rather than the earlier *Palaeolimnornis* Jurcsák & Kessler, 1985. Subsequently, Kessler (1987, p. 129) again stated that the generic name *Limnornis* (sic; = *Limnornis*) Kessler & Jurcsák, 1984, p. 395, is preoccupied by *Limnornis* Gould, 1839, and proposed the replacement name *Eurolimnornis* for it (note the name *Eurolimnornis* Kessler, 1987 is not the same as the name *Eurolimnornis* Kessler & Jurcsák, 1986; it is a junior homonym). Moreover, Kessler (1987) did not state that *Eurolimnornis* had already been proposed by Kessler & Jurcsák (1986, p. 290) with the type species *Eurolimnornis corneti* associated with the holotype (MTCO-P 7896; see below), and he failed to mention that Jurcsák & Kessler (1985, p. 138) had already proposed the substitute name *Palaeolimnornis* for *Limnornis*.

A question exists whether the name *Palaeolimnornis* Jurcsák & Kessler, 1985 is an available name because it was introduced simply in a list of names of taxa without any further discussion and/or description. Although Jurcsák & Kessler (1985, p. 138) briefly indicated that *Palaeolimnornis* was being proposed as a replacement name for the preoccupied *Limnornis* by stating that *Limnornis corneti* Kessler & Jurcsák, 1984 is a synonym of *Palaeolimnornis corneti* Jurcsák & Kessler, 1985, this does not satisfy the requirements for availability.

The next step was the proposal of the species name *biharicus* (Kessler & Jurcsák, 1986, p. 290) published in the combination *Palaeocursornis biharicus* with a proper description. The species name *Palaeocursornis biharicus* is an available name, but it is also an objective junior synonym of *Limnornis corneti* Kessler & Jurcsák, 1984 as the two names are attached to the same holotype (MTCO-P 1637). Moreover, Jurcsák & Kessler (1985, p. 138) had already proposed the binomen *Palaeocursornis biharicus*, but this appears to be a *nomen nudum* as it is not accompanied by a proper description and mention of the holotype, or mention that it is a replacement name. The comments by Jurcsák & Kessler (1985, p. 143) do not constitute a proper description. In addition, they

did not state (Jurcsák & Kessler, 1985, p. 138) whether *Palaeocursornis biharicus* is a replacement name for an earlier available name; it is introduced simply in a list of fossil taxa without further comment, not even the mention of synonymy with an earlier available name as given for other names they introduced. Hence, *Palaeocursornis biharicus* Jurcsák & Kessler, 1985 is not available for zoological nomenclature and does not preoccupy *Palaeocursornis biharicus* Kessler & Jurcsák, 1986.

Therefore, the correct valid specific name for the taxon based on the holotype of the femur (MTCO-P 1637) is *Palaeocursornis corneti* Kessler & Jurcsák, 1984, published originally in the combination *Limnornis corneti* Kessler & Jurcsák, 1984 if this species is recognized as a distinct taxon. *Limnornis corneti* Kessler & Jurcsák, 1984, *Palaeocursornis biharicus* Kessler & Jurcsák, 1986 (but not the unavailable *Palaeocursornis biharicus* Jurcsák & Kessler, 1985), and *Palaeolimnornis corneti* Jurcsák & Kessler, 1985, p. 138, are synonyms of *Palaeocursornis corneti* Kessler & Jurcsák, 1984.

Several generic names have been based on the species-group name for which the left femur MTCO-P 1637 is the holotype. These are *Limnornis* Kessler & Jurcsák, 1984, based on *Limnornis corneti* Kessler & Jurcsák, 1984; *Palaeocursornis* Jurcsák & Kessler, 1985, p. 138, based on *biharicus* (not available as it is not based on a description and not stated to be a replacement name); *Palaeolimnornis* Jurcsák & Kessler, 1985, p. 138, based on *Limnornis corneti* Kessler & Jurcsák, 1984 (not available as it is not based on a description and not stated to be a replacement name); *Palaeocursornis* Kessler & Jurcsák, 1986, based on *biharicus* Kessler & Jurcsák, 1986 and accompanied by a proper description; and *Eurolimnornis* Kessler, 1987, based presumably on *Limnornis corneti* Kessler & Jurcsák, 1984 as a replacement name for *Limnornis* Kessler & Jurcsák, 1984 (but not *Eurolimnornis* Kessler & Jurcsák, 1986, p. 290). *Palaeocursornis* Kessler & Jurcsák, 1986 has priority and is the valid name for this genus-level taxon.

Several family-group names were proposed. The first was Limnornithidae Kessler & Jurcsák, 1984, p. 397, which is not an available name because *Limnornis* Kessler & Jurcsák, 1984, p. 397, is a junior homonym of *Limnornis* Gould, 1839. Next was Cursornithidae Kessler & Jurcsák, 1985, p. 138 (see also, Cursornithidae Kessler & Jurcsák, 1986, p. 290), which is not available as it is not based on the type genus *Cursornis* which does not exist to our knowledge. It should not be confused with *Cursorius* Latham, 1790 and the family-group name *Cursoriinae* G. R. Gray (see Bock, 1994, p. 137). Hence, as Kessler & Jurcsák (1985, p. 138) did not recognize a genus possessing the valid name *Cursornis* at the time they proposed the family-group name Cursornithidae, this name is not available. Finally, Jurcsák & Kessler (1988, p. 648) used Palaeocursornithidae for the family-level taxon containing the genus *Palaeocursornis* Kessler & Jurcsák, 1986, which is the only available family-group name for the taxon containing the genus *Palaeocursornis* Kessler & Jurcsák, 1986 (not 1985 as cited in their paper).

Although ordinal names are not governed by the Code, it would be best not to use Limnornithiformes Kessler & Jurcsák, 1984, p. 397, or Cursornithiformes Jurcsák & Kessler, 1985, p. 138, for the same reasons that the family-group names Limnornithidae and Cursornithidae are unavailable. If an ordinal name is needed for an order-level taxon containing the family Palaeocursornithidae, it should be Palaeocursornithiformes Kessler & Jurcsák, 1986, p. 290. The order Palaeocursornithiformes Kessler & Jurcsák, 1986 is apparently a member of the Palaeognathae (= Ratitae; see Kurochkin, 1995).

3. *Eurolimnornis corneti* Jurcsák & Kessler, 1986

Under this heading we treat the names based on the holotype specimen, right humerus, distal fragment (MTCO-P 7896 in the collection of the Muzeul Tarii Crisurilor Oradea-Paleontology, Kessler & Jurcsák, 1984, p. 397, which is one of the specimens mentioned in Kessler & Jurcsák, 1984, p. 397, as part of the material originally described under *Limnornis corneti* Kessler & Jurcsák, 1984). This holotype specimen was originally described as *Eurolimnornis corneti* Kessler & Jurcsák, 1986, p. 290, and *Eurolimnornis* Kessler & Jurcsák, 1986, p. 290, which are both available names because they are accompanied by proper descriptions. The fact that the authors referred to descriptions in the 1984 paper given under the name *Limnornis corneti* does not affect the availability of *Eurolimnornis corneti*. However, Kessler & Jurcsák (1986, p. 290) are in error when they stated that *Limnornis corneti* Kessler & Jurcsák, 1984 and *Palaeolimnornis corneti* Jurcsák & Kessler, 1985 are synonyms of *Eurolimnornis corneti* Kessler & Jurcsák, 1986. These two former names are synonyms of *Palaeocursornis corneti* Kessler & Jurcsák, 1984 (see above). The specific name *corneti* published in the combination *Limnornis corneti* Kessler & Jurcsák, 1984 is not a synonym of *corneti* published in the combination *Eurolimnornis corneti* Kessler & Jurcsák, 1986 because these two names are based on different holotypes which are not considered to be members of the same species taxon. As far as we can ascertain, no synonyms exist for *Eurolimnornis corneti* Kessler & Jurcsák, 1986.

Eurolimnornis Kessler & Jurcsák, 1986, p. 290, is the only available generic name based on the genotype *Eurolimnornis corneti* Kessler & Jurcsák, 1986, p. 290, based on the holotype MTCO-P 7896. *Eurolimnornis* Kessler 1987 is not the same as *Eurolimnornis* Kessler & Jurcsák, 1986 as Kessler stated clearly that *Eurolimnornis* Kessler, 1987 is a synonym of *Limnornis* Kessler & Jurcsák, 1984 (misspelt here as *Limnoris*); hence *Eurolimnornis* Kessler, 1987 is a junior homonym of *Eurolimnornis* Kessler & Jurcsák, 1986, as stated above. It is unclear why Jurcsák & Kessler (1987, p. 588) again proposed the generic name *Eurolimnornis* as a new name.

Kessler & Jurcsák (1986, p. 290) proposed the family-group name Eurolimnornithidae based on the genus *Eurolimnornis* Kessler & Jurcsák, 1986, which is the only available name for the family-level taxon containing this genus. Their use (Jurcsák & Kessler, 1987, p. 588; 1988, p. 649) of Limnornithidae for the nominal family containing the genus *Eurolimnornis* is in error.

Kessler & Jurcsák (1986, p. 290; Jurcsák & Kessler, 1987, p. 588; 1988, p. 649) continued to use the ordinal name Limnornithiformes for the order-level taxon containing the genus *Eurolimnornis*. Although the Code does not cover names above the family-level, this name should not be used because the available generic name *Limnornis* Gould, 1839 belongs to a different group of birds, the Passeriformes. If an ordinal name is needed, then we propose that this be Eurolimnornithiformes which takes precedence from this paper. The Eurolimnornithiformes are apparently a member of the Neognathae (Kurochkin, 1995).

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