



Corrected date of the first description of aurochs *Bos primigenius* (Bojanus, 1827) and steppe bison *Bison priscus* (Bojanus, 1827)

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Abstract

A newly discovered copy of Ludwig Heinrich Bojanus' *De uro nostrato ejusque sceleto commentatio, Bovis primigenii sceleto aucta* in the collection of the Palaeontology Library of the Muséum National d'Histoire Naturelle in Paris, France, published in 1825, is presented as an argument that the date of description of aurochs *Bos primigenius* (Bojanus, 1827) and steppe bison *Bison priscus* (Bojanus, 1827) should be corrected. Bojanus' name should be followed by the date 1825, not 1827, when citing those species: *Bos primigenius* (Bojanus, 1825) and *Bison priscus* (Bojanus, 1825).

Keywords History of science · Aurochs · Steppe bison · *International Code of Zoological Nomenclature*

Ludwig Heinrich Bojanus' (1776–1827) *De uro nostrato ejusque sceleto commentatio, Bovis primigenii sceleto aucta* is one of the most important publications devoted to European bison and aurochs and one of the remaining most prominent nineteenth-century works on comparative anatomy. It is also one of the last publications of this scholar, who moved from Vilnius to Darmstadt in 1824 with terminal illness (Fedorowicz 1958). His last years and contents of his last will were a subject of a separate publication (Daszkiewicz and Edelman 2014).

In his work, Bojanus delivered a detailed description of European bison with special attention paid to the skeleton. He also reflected upon an ongoing scientific debate whether European bison and aurochs were separate species, stating that two different *Bovidae* species existed in Europe in historical times. This publication was also the first to describe two species: aurochs *Bos primigenius* and steppe bison *Bison priscus*.

Bojanus created a new osteometric methodology for the purposes of his work, which was soon recognised by the scientific community and proclaimed a milestone in the history of comparative anatomy (Krysiak and Świeżyński 1967). The work was republished in the twentieth century with a Polish translation and a scientific analysis (Roskosz and Empel 1965).

A mystery surrounds the date of publication of *De uro nostrato ejusque sceleto commentatio, Bovis primigenii sceleto aucta*. There is a date, 1825, on the first page of the work but it was published in the 13th volume of *Nova Acta Academiae Caesareae Leopoldino Carolinae Germanicae Naturae Curiosorum*, only in 1827. According to the *International Code of Zoological Nomenclature* (ICZN 1999), this year is recognised as the date of description of both species. Nevertheless, some authors, including Fedorowicz (1958), mentioned an earlier edition, dated to 1825 and published in Vilnius, yet the search for that edition was so far fruitless. Roskosz and Empel (1965) summed it up as follows:

It is very unlikely that this work had an antecedent Vilnius edition from 1825, as some sources claim. In the detailed Bojanus' bibliography by Sobieszkański (1849), taking into account subsequent editions and translations, we read: "There are up to 50 of his works and dissertations published separately or in journals, or left in manuscripts, and we list them with bibliographical scrupulosity" and *De uro nostrate ejusque sceleto* is mentioned only in section II ("Published in journals") and is absent from section I which collected all his manuscripts. Also dr. I. I.

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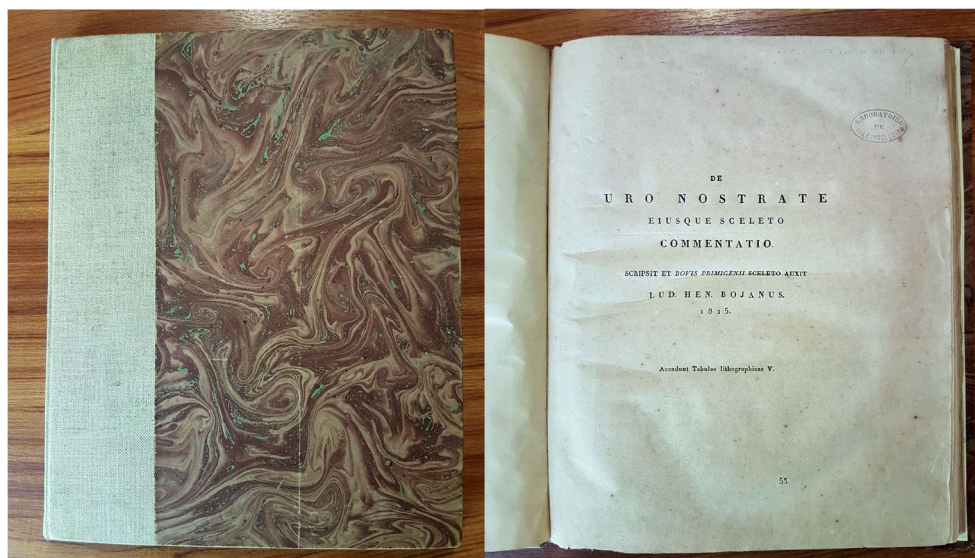
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Fig. 1 The cover and the title page of a copy of Ludwig Heinrich Bojanus' *De uro nostrato ejusque sceleto commentatio, Bovis primigenii sceleto aucta* in the Palaeontology Library of Muséum National d'Histoire Naturelle in Paris (photograph by Jean-Christophe de Massary)



Sokolov from the Zoological Institute of Academy of Sciences in the USSR in Leningrad was not able to find any traces of “Vilnius” edition.

No traces were also discovered during long-term studies on Bojanus' biography and heritage conducted in Lithuanian, Polish, German and French libraries and archives (Edel and Daszkiewicz 2015).

From a historical point of view, a copy of *De uro nostrato ejusque sceleto commentatio, Bovis primigenii sceleto aucta* held in the Palaeontology Library of Muséum National d'Histoire Naturelle in Paris (MNHN) is particularly interesting. Bojanus had a special connection with this institution, where he conducted part of his studies. In his work, he cites the skeleton of a bison from the collection in Paris. Bojanus has dedicated his most important work *Anatome testudinis europae* to palaeontologist Georges Cuvier, whom he considered his master. In the collection of the main library of MNHN, there is a copy of *Anatome...* and *Parergon ad L.H. Bojani Anatomem testudinis: cranii vertebratorum animalium, scilicet piscium, reptilium, avium, mammalium comparationem faciens, icone illustratum: in usum studiosae juventutis seorsum excusum* that belonged to Cuvier, alongside a letter from Bojanus to Cuvier.

There is a copy of *De uro nostrato ejusque sceleto commentatio, Bovis primigenii sceleto aucta* in the Palaeontology Library of MNHN bound as a separate book which is not a part of *Nova Acta Academiae Caesareae Leopoldino Carolinae Germanicae Naturae Curiosorum* (Fig. 1). The pagination is identical to the edition published in the journal, but the illustrations are placed after the text, opposed to the journal, where they are published at the end of the volume. The first page of this copy is marked with the date of 1825, and although identical to the *Nova Acta*

Academiae version, there are no indications that it was printed or available only in 1827. According to the article 21 of ICZN: “21.2. Date specified. The date of publication specified in a work is to be adopted as correct in the absence of evidence to the contrary” (ICZN 1999): the publication date of 1825 should be adopted in this case, making it also the correct date of the first description of aurochs and steppe bison. Therefore, Bojanus' name should be followed by the date 1825, not 1827, when citing those species: *Bos primigenius* (Bojanus, 1825) and *Bison priscus* (Bojanus, 1825).

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