

## A note on the *Museum Leskeanum*

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**ABSTRACT.** The *Museum Leskeanum* of D.L.G. Karsten (1789) should be considered as an available work, in the meaning of the International Code of Zoological Nomenclature.

**RESUME.** Le *Museum Leskeanum* de D.L.G. Karsten (1789) doit être considéré comme un travail disponible, dans le sens du Code International de Nomenclature Zoologique.

**KEYWORDS:** Zoological nomenclature, Karsten, available work, *Museum Leskeanum*.

The names in Karsten's *Museum Leskeanum* are generally dismissed in the malacological literature as being "non-binominal". Careful re-examination of this work shows that this opinion should be reversed.

**Dietrich Ludwig Gustav KARSTEN** was born in Bützow (Mecklenburg) on April 5, 1768 in a family of great scientific achievers. His father, Wenceslas J.G. KARSTEN (1732-1787) was one of the foremost German mathematicians of the 18th century, the author of many books and a professor at several universities. His uncle Franz C.L. KARSTEN (1751-1829) was a prominent agronomist, professor at Iena. His cousin Karl J.B. KARSTEN (1782-1853) was a mineralogist, author of many works, and ended as chief adviser for the mines in Berlin.

Albeit rarely cited in malacology, Dietrich Ludwig Gustav KARSTEN is very well known in mineralogy, a field of which he is considered to be one of the most important founders. He first studied mathematics and physics with his father, then enrolled in 1782 in the Freyberg school of mines, where he studied for years under A.G. Werner. He was designated in 1788 to classify the mineral collection of N.G. LESKE, that was also very rich in animals. This resulted the following year in the publication of the *Museum Leskeanum*, consisting in two in 8° volumes. The second volume proposed a new method of classifying minerals on the basis of their natural characters and was epoch-making in the history of mineralogy. The first volume (*Regnum Animale*) is the subject of this note. After this, Karsten published numerous works on mineralogy and related fields. In 1789 he was lecturing at the University of Berlin, where

he was called by the minister Heynitz. Karsten progressed rapidly in the scientific hierarchy and in 1810 he was nominated to head of the administration of sciences. He died shortly later, in Berlin on May 5, 1810.

**Nathanel Gottfried LESKE**, whose collection is described in the *Museum Leskeanum*, was a German naturalist born in Muskau on October 22, 1751. He was a professor at Leipzig and Marburg and published books on botany, ichthyology, physiology, etc. He died in Marburg on November 25, 1786.

**The *Museum Leskeanum*** (of which we will only consider the first volume, the second being devoted to minerals) consists of 320 pages and 9 plates. An exemplary is present at the Dautzenberg Library (Institut Royal des Sciences Naturelles de Belgique, Brussels). The front page is reproduced in Fig. 1.

The Volume 1 of the *Museum Leskeanum* consists of 6 parts: *Mammalia* (86 specimens), *Aves* (161 specimens), *Amphibia* (120 specimens), *Pisces* (72 specimens), *Insecta* (2576 specimens) and *Vermes* (1430 specimens). The numbering in the book concerns specimens, not species.

The voluminous part on Insects is not of the hand of Karsten, but is from one J.J. Zschach as clearly stated on the first page of the chapter (see fig.2). This interesting but separate work will not be discussed here and should be referred to as "Zschach in Karsten".

**Availability of the *Museum Leskeanum*.** To be available a work must:

a/ be published within the meaning of the International Code of Zoological Nomenclature after 1757.

b/ not be suppressed by the International Commission of Zoological Nomenclature for nomenclatural purposes.

c/ consistently apply the Principle of Binominal Nomenclature.

We shall consider these three points in succession.

a/ The book was printed in Leipzig in 1789 ("*LIPSIÆ, SUMPTIBUS HAEREDUM I.G. MULLERI*"). It obviously meets the requirements of Chapter III (Criteria of Publication) of the Code.

b/ The *Museum Leskeanum* was not found in the Official Index of Rejected and Invalid Works in Zoological Nomenclature.

c/ All the descriptions of Karsten (numbering 1869) have been checked. By large, Karsten's text is consistently binominal, never referring to an animal by a vernacular name only. One entry is clearly non-binominal: "*Pinna haud ignobilis*" (p. 186, 403-404). This should present no nomenclatural problem, as it simply means: "a *Pinna* that is not of the species *ignobilis*". It is obviously not a name but, on the contrary, a disclaimer approximating our modern "*Pinna* aff. *ignobilis*". The remainder of the text still contains a number of trinomens as well as a few names that are questionable for the modern taxonomist. As examples of the most disputable cases we found, let us cite: *Arca Rhomboidalis I. Orient.* (p.173), *Cypraea Caput Serpentis* (p. 204), *Turbo Cidaris rufescens* (p. 275), *Turbo Tectum Persicum* (p. 275).

On the one hand, our first reaction was that Karsten's work is not consistently binominal and should be rejected. On the other hand, we are well aware that such departures from strict binominal nomenclature are commonplace in ancient works that are officially available in the meaning of the International Code of Zoological Nomenclature. It is obvious that the rigid requirements of the Code are *de facto* more flexible in the case of very old authors. But by how much should the rules be stretched? We strongly feel that it is not for us to rule on this point.

In the present case, we do not even need to air our own opinions on the subject. The acceptable level of departure from strict binominality can be very simply determined by comparing (see Table 1) the major deviations to binominal nomenclature found in the *Museum Leskeanum* with some present in the *Museum Boltenianum* (Röding, 1798), a work that is approved by the International Commission of Zoological Nomenclature (Official List of Works Approved as Available for Zoological Nomenclature. Direction 48. Title 26. Publ. 21 nov. 1956). Such cases are actually very common in Röding's *Museum Boltenianum*. Amongst many others (not utilised in Table 1) let us cite: *Cassis Caput Bovis* (p. 28, n° 342), *Cassis Mitella Polonica* (p. 29, n° 357), *Conus Mille punctatus* (p. 47, n° 605), *Conus cutis anguina* (p. 619, n° 48), *Trochus Tectum chinense* (p. 81, n° 1057), *Neptunea Corona Mexicana* (p. 116, n° 1492).

<i>Museum Leskeanum</i> (Karsten, 1789)	<i>Museum Boltenianum</i> (Röding, 1798)
<i>Arca Rhomboidalis I. Orient.</i> (p.173)	<i>Conus Archithalassus Indiae</i> (p. 43, n° 545)
<i>Conus Cauda Erminea</i> (p. 191)	<i>Bulla Ovum Vanelli</i> (p. 15, n° 181)
<i>Cypraea Caput Serpentis</i> (p. 204)	<i>Cypraea Caput Serpentis</i> (p. 23, n° 23)
<i>Turbo Cidaris rufescens</i> (p. 275)	<i>Bulla Ampulla Striata</i> (p. 15, n° 182)
<i>Turbo Tectum Persicum</i> (p. 275)	<i>Cidaris Tectum persicum</i> (p. 84, n° 1089)

**Table 1.** Examples of some departures from strict binominality in Karsten (1789) and in Röding (1798).

The short comparison table given here could be considerably extended, with the same result. Karsten's occasional deviations to strict binominalism are all exactly matched in Röding's *Museum Boltenianum*, published a

decade later. If only for the sake of coherence, what is accepted for Röding should also be accepted for Karsten and we see no reason why the *Museum Leskeanum* names should not be available.

**Comments.** The work of Karsten is of incomparably higher scientific standing than the sterile, uninteresting enumeration of Röding. It is perfectly clear from the *Praefatio* that the author is conversant with the Linnean system and well aware of the distinction between generic and specific characters. He is also familiar with natural variation, as evidenced all along the text. His descriptions (see examples in fig. 3) are objective and informative. For molluscs, Karsten gives measurements of length *and* width and is thus a precursor of shell morphometry (the ratios of his measurements on *Oliva* were checked by us and found most accurate). In contrast to most of his contemporaries, Karsten gives a detailed list of references and carefully analyses his sources. Reading the *Museum Leskeanum* always gave us an impression of modernity. The author was obviously quite in advance on his time, as attested by his fame in another field, mineralogy.

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## References

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MUSEVM  
LESKEANVM

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REGNUM ANIMALE

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QVOD  
ORDINE SYSTEMATICO

DISPOSUIT ATQVE DESCRIPSIT

D. L. GVSTAVVS KARSTEN,  
SOCIET. NAT. CVRIOS. HALENS. SODALIS.

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V O L. I. <sup>KGL. CHIR. ACAD.</sup>

*Cum IX. iconibus pictis.*

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L I P S I A E,  
SVMP T I B V S H A E R E D V M I. G. M V L L E R I



Fig. 1. The cover page of the *Museum Leskeanum*.

CLASSIS V.  
INSECTA.  
CURA J. J. ZSCHACHII.

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**Haec classis a Clariss. J. J. Zschachio Med. Bacc. elaborata, jam ante annum et quod excurrit sub titulo: Museum N. G. Leskeanum. Pars entomologica, ad systema entomologiae Cl. Fabricii ordinata 8 maj. in bibliopolio Mulleriano typis expressa est. Quae entomologica collectio, cum singularem collectoris curam exposcat, fortassis a reliquo museo sejuncta, naturae scrutatori, cuius imprimis intersit, istam possidere, separatim divendetur.**

Fig.2. The cover page of the part on insects

## 252 MUS. LESKE. REG. ANIM.

*Murex Olearium.*

Linn. S. N. Gen. 325. Sp. 530.

a Born. test. muf. Vind. pag. 297.

- 919 M. Ol. testa pallida transversim striata, ocellis ferrugineis
- 
- seriatim cincta, apertura dentitulata.

Chemn. Konch. Kab. T. 4. tab. 127. fig. 1223.

Long. 6 poll. 6 lin. lat. 3 poll. 8 lin.

- 920 M. Ol. testa subferruginea albido maculata, varicibus
- 
- alternis tuberculatis; apertura lactea ad labrum incar-
- 
- nata fusco maculata, labioque fusco.

Long. 6 poll. lat. 3 poll.

- 921 M. Ol. testa albida unicolor; labrum dentibus solitariis
- 
- oblitum; paululum destructum.

Long. 5 poll. 8 lin. lat. 2 poll. 6 lin.

*Not.* Hac in specie plane secuti sumus Perill. a Bornium;  
nulla enim habita ratione sententiae Chemnitzii secun-  
dum quam fig. supra citata M. Olear. Linn. propterea  
non responderet, quod apertura esset denticulata;  
sed Archiater Linn. etiam in Lampade, Femorali et in  
pluribus testis, aperturam edentulam docet, ubi Con-  
chilogistae recentiores veritatem et constantiam cha-  
racteris huius non confirmatam viderunt.

*Cypraea amethystea.*

Linn. S. N. Gen. 320. Sp. 334.

- 540 C. am. testa subfusca, antice ac postice violaceo undata;
- 
- lateribus gibbis, fusco maculatis.

Martini Konch. Kab. T. 1. tab. 25. fig. 248.

Long. 2 poll. 5 lin. lat. 1 poll. 4 lin.

*Conus Ruficus.*

Linn. S. N. Gen. 319. Sp. 306.

- 463 C. R. testa ex livido flavescens albida, in medio fasciata,
- 
- area postica punctis albidis elevatis in seriebus cincta. Ind.
- 
- Occ.

Martini Konch. Kab. T. 2. tab. 63. fig. 694.

Long. 1 poll. 8 lin. lat. 1 poll.

- 464 C. R. testa sublivida, apertura intus gibbosa.

Long. 1 poll. 7 lin. lat. 11 lin.

- 465 C. R. testa livida albo fasciata, area postica undique filis
- 
- granulosis, antica duobus tantum cincta.

Long. 1 poll. 2 lin. lat. 9 lin.

- 466 C. R. testa flavescens fascia albida in medio nulla.

Long. 1 poll. 5 lin. lat. 11 lin.

Fig. 3. Examples of descriptions of mollusc species