

The Mosquito: an eloquent defence of Linnaeus



Beatrice Gruendler¹ and Janis Antonovics²

Wissenschaftskolleg zu Berlin, Wallotstrasse 19, 14193 Berlin, Germany

1. Current address: Near Eastern Languages and Civilizations, Yale University, New Haven, CT 06520, USA
e: beatrice.gruendler@yale.edu

2. Corresponding author. Current address: Biology Department, University of Virginia, VA 22904, USA
e: ja8n@virginia.edu

Introduction

It is well known that Linnaeus' classifications aroused ire and controversy among many of his contemporaries. His use of the sexual system for plants seemed outrageous and offensive, and his inclusion of humans as quadrupeds among the primates put his personal safety at risk by brazenly challenging church and establishment. Though his classificatory scheme had many advocates, Linnaeus' arrogant and peremptory persona provoked jealousy amongst his Swedish colleagues (Lindroth *et al* 1983). As an international figure, Linnaeus earned British admiration, but faced a bristly reception in Europe, especially when he offended such authorities as Albrecht von Haller, the famous Swiss botanist and physician (Hjelt 1870).

Here we present a translation of an article praising Linnaeus, published in Berlin in the mid-1700s, and featuring a delightful poem, 'The Mosquito' (Anon 1757). This article was published in the serial *Physikalische Belustigung*, which translates literally as 'Physical delights'. This serial was one of the earliest publishing ventures in popular science, and illustrates the public's growing interest in science during the Enlightenment. First produced in 1751, by Christlob Mylius (1722–54) and Abraham Kästner (1719–1800), *Physikalische Belustigung* reflected the pair's interests in scientific discoveries, and though published irregularly, the journal's 30 issues included original articles, commentaries and translations. Its final issue contained seven articles, ranging from the commentary on Linnaeus to such diverse pieces as 'A new theory of moonlight', 'Tea in Paraguay', and 'Journey into Space'. We have no information on how widely it was circulated, but no doubt its intriguing and eclectic content made for a successful publication. The article on Linnaeus is unsigned, as are all but one of the articles in this issue. It seems likely, however, that Kästner himself wrote the article; he was well known for poetic fables (Baasner 1991), and Mylius, the other editor and contributor, had died a few years earlier.

We present the translation largely for the poem, 'The Mosquito', but the article itself may be of interest, at least for some of its rather telling metaphors, so we include

it for completeness. The author defends the natural system of classification, and realises (as did Linnaeus himself) that the 'natural' Linnaean system, while necessarily partly 'artificial' out of convenience, was an enormous advance over previous systems. The poem metaphorically challenges the criticisms cast on the Linnaean system by those who did not recognise its value. It recounts the observations of a myopic mosquito who, unable to understand the beauty of a Greek statue, criticises the whole thing for defects it perceives in the details. We have kept the translation of the text fairly literal, but taken some liberty with the poem. We therefore also reproduce the poem in German. The original text is available via the web at Google Books.



Translation

III. On the systematic classification of minerals, plants, and animals into Classes and Orders.

We are fortunate to have progressed sufficiently in the study of natural history to have devised good systems of classification for all sorts of species, and ones that are flexible enough to incorporate further observations. Even people who study natural history merely for pleasure can see how much they owe to Linnaeus who revised the chaos and stupidity in natural history so thoroughly that for this he had to endure a downpour of criticism. Without having a proper system for every realm of nature, it is impossible to acquire knowledge and reach the right goals. The anti-systematists (and there are still many of them, because there have always been plenty of ignoramuses) must rely almost totally on memorisation, and all they acquire is past knowledge, whereas a systematist can undertake the most exact investigation with little effort and insightful confidence. Many people today agree with us on this point. If it were only as little effort to convince them which classification is the best and how it can be most usefully achieved. In this respect, most people trust their own intuition too much. Does not every reasonable person, who is used to thinking a bit deeper, have to laugh when another botanist still divides plants into trees and herbs and considers that this is a natural division? The older scholars, who had to break the ice, can be excused, although many of these already had progressed further. The gardener is

happy to split them in this way, and perhaps the farmer too. But the herbalist should have better grounds for division. We however, we who can stand on their shoulders must see further than they, or not want to insist on what we see, let alone blame famous men who see further than us, lest we be in the position of the mosquito in the following fable:

The Mosquito

On a marble statue,
which to give the finest sheen
an artist had much care decreed,
a mosquito crawled about.
And like a philosopher
who deeply thinks in pose,
and places his finger
on his wrinkled nose
to pretend to argue learnedly,
it likewise rubbed
its beak with spindly feet
while entertaining thoughts.

It spoke: I'd like to know indeed
why some wise fool
stands by this image raptured.
Wherever my foot treads,
The ground is rough and coarse.
And as far as my eye can probe,
there is no beauty to behold.
Thus 'tis only fools who praise!
* * *

A small mind that toils in vain
to understand the beauty of the whole,
is satisfied with pointing out the smallest stain
and can but insult him who has the larger view.

Die Mücke

An einer marmoren Statüe,
Um die ein Künstler sich besondre Mühe
Den feinsten Zug zu treffen gab,
Kroch einst die Mücke auf und ab,
Und wie ein Philosoph, der tief zu denken pflegt,
Den Finger, um gelehrt zu zanken,
Auf die gerümpfte Nase legt;
So rieb sie auch zu forschenden Gedanken,
Die Schnauze sich mit dürrn Füßen.

Sie sprach: Ich möchte doch wohl wissen,
Warum so mancher weiser Thor
Entzückt bey diesem Bilde steht,
Es fühlt mein Fuß, so weit er geht
Den Boden rauh und holpricht an.
So scharf mein Auge forschen kan,
Will wir sich doch nichts schönes weisen,
Drum Thoren sind es, die es preisen!

* * *

Ein kleiner Geist, der sich umsonst bemüht,
Des Ganzen Schönheit einzusehen,
Begnügt sich im Vorübergehen
Die kleinsten Fehler auszuspähen,
Und schimpft auf den, der weiter sieht.

The Linnaean plant system is this beautiful statue on which many mosquitoes have been crawling. Nevertheless, it is hardly my purpose here to involve myself with stubborn people. I only want to say something regarding a bias to which we are all prone when we look at the classification of the works of nature by others. I have often heard of complaints about the unevenness of Classes. However, nothing is more certain than that in a truly natural system, some Classes would often have high abundances, while others would often consist of only one or a pair of members. Let us see whose fault this is. If one wants the philosopher of natural history to divide things up correctly then it is indisputable that he must do it in the same way that nature has. Only most

people, when they consider a natural system don't realise that nature does not make Classes and Orders, like in a school. These latter are no doubt very similar to each other. However in nature, one should not follow this concept of Class and Order. For example, there are so many kinds of plants that are so similar to each other that even someone who is inexperienced easily sees that they cannot be separated from each other. One of the clearest examples is the Class Papilionaceorum or the Diadelphia of Linnaeus. Conversely there are very many flowers that differ greatly from each other and one can therefore only put them each in a **single**¹ Class, not to say a single Order. Thus a single class should be made on the basis of rules and similarity in nature. And this is really the reason why we still don't have a singular natural system for the plant kingdom, because the students of nature appear not to have considered that a whole natural Class (indeed very often) has to consist of relatively few kinds of plants. And it should be expected that some such classes would be more abundant than others. One can consult the Linnaean philosophy of botany to see how many plants remain which do not want to be placed in any natural order. The difference in natural history between a real systematist and a false one is a difference as big as that between a **dissectionist** and a **butcher**. The latter is intent on making attractive and equal pieces out of a body, and does not give a thought to the joints, or accordingly to divide the whole of the body into pieces. The former however, is careful to consider nature in all its smallest parts, and does not care whether his parts are all attractive and of the same size. In this respect, I think one can find no better analogy. It can also serve as a proof of how nature itself alternates between the large and the small. We can often find the reason why some classes are not as substantial as others. The amphibian Class is considerably smaller than the others, and who does not see in this the wisdom of the Creator who did not want to afflict us with more dangerous animals.

“The difference in natural history between a real systematist and a false one is a difference as big as that between a **DISSECTIONIST** and a **BUTCHER**.”

I cannot explain this better than by using the fifth Order of the Class of quadrupeds in the Linnaean system. The other five Orders clearly suggest a natural division based on the teeth (Footnote in original: I exclude some details which, after the reminder of Mr Kleims, [sic] Linnaeus corrected in subsequent editions); thus the characteristics of this fifth Order are described as 'Dentes a reliquis 1.2.3.4.6. diversi, anomali'^{2,3}. Here I can say nothing other than that each of these animals should be put into its own Order because nature had wished for nothing else in view of the natural differences between these animals, and their lack of similarity with each other. The **elephant** and the **rhinoceros** and perhaps the **pig** could be put in the same Order, but the **horse** and the **hippopotamus** should each obviously be in their own Orders. Incidentally, Mr Linnaeus seems to have done quite well here by not making several Orders out

of these, so as not to scatter our memory too much, and not to cause trouble for the weak.

If one now considers these small things, one will hopefully be sufficiently convinced how essential it is in natural history to leave aside all that which to us seems otherwise correct and noble in ordinary life. Indeed, one must follow nature exactly in all its aspects, and embellish it with nothing extraneous.

Footnotes to the translation

1. The words in bold are also in bold in the original text.
2. Translated from the Latin this is: Teeth different from other orders 1,2,3,4,6, diverse, anomalous.
3. The author here is referring to one of the earlier (6th to 9th) editions of the *Systema Naturae*, published in 1748–56. In these editions, Linnaeus distinguished the Class Quadrupedia as having six Orders: variously these included Anthropomorpha (man and primates), Ferae (carnivores), Glires (rodents), Jumenta (horses, hippos, elephants and pigs), and Pecora (ungulates). In the 1st to 5th Editions (1735–47) Linnaeus distinguished only five orders of Quadrupedia. In the 10th Edition, published in 1758 after this article, he dropped the name Quadrupedia and substituted Mammalia (Schiebinger 1993).

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