

Zeitschrift: Mycologia Helvetica
Herausgeber: Swiss Mycological Society
Band: 6 (1994)
Heft: 1

Artikel: The existence of genera
Autor: Kornet, D.J.
DOI: <https://doi.org/10.5169/seals-1036324>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 10.08.2025

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

The Existence of Genera

D. J. Kornet

Institute of Theoretical Biology
University of Leiden
The Netherlands

Some taxonomists believe that genera do not exist in nature at all, and that they are arbitrary categories by which we order nature for our convenience. But many other taxonomists believe that genera are real entities which exist in nature independently of human minds. This paper addresses the question in what sense genera can be said to exist.

I will start by pointing out a distinction between two senses in which genera can be thought to 'exist':

a) In the first sense, the existence of genera is claimed in virtue of their being objectively recognizable in nature: they can be recognized from patterns of morphological similarity.

b) In the second sense, a genus can be said to exist in virtue of its being a historical entity, one possessing cohesion in time assured by the relationships among its members. By analogy, individual organisms exist in this sense by virtue of the historical cohesion of their constituent cells.

Species are frequently grouped together into genera on the basis of correlated characters: the fact that these characters are intersubjectively recognizable is taken as evidence that the genera are objective and therefore truly exist. But groups of organisms may show an objectively recognizable morphological pattern without being a historically cohesive entity with a beginning, temporal continuity and a possible end in time. My paper will give some examples of this, drawn from mycology.

I will recommend associating the intuitive notion of existence with historical entities which possess cohesion in time. My justification is that, even if a number of entities share some properties, the grouping of those entities is not necessarily itself an existing entity. For instance, it is not the case that all atoms of gold, which share their atomic properties, form a cohesive entity.

I suggest that taxonomists are often initially led to attribute objectivity to genera in virtue of intersubjective recognizability, but move imperceptibly to giving them also the existence of historical entities. Anyone who does want to

attribute to genera existence in this stronger sense must identify genera as historical groups.

The historical entity which today constitutes the most promising candidate for that identification is the monophyletic group. If genera are interpreted as monophyletic groups, they can be attributed existence in the stronger sense, as historical entities. Of course, for recognition of monophyly of a genus we will need to rely on morphological similarity. But only those character-states should be given taxonomic weight which indicate the phylogenetic history and with it the unity of a particular genus as a monophyletic group.

If this is true, it implies that genera have no exceptional ontological status among higher categories: all supra-specific categories exist in the same way in which monophyletic groups all exist.



