

AperTO - Archivio Istituzionale Open Access dell'Università di Torino

**The Legitimate Name of a Fungal Plant Pathogen and the Ethics of Publication in the Era of Traceability**

**This is the author's manuscript**

*Original Citation:*

*Availability:*

This version is available <http://hdl.handle.net/2318/1608490> since 2017-05-26T16:29:12Z

*Published version:*

DOI:10.1007/s11948-016-9800-3

*Terms of use:*

Open Access

Anyone can freely access the full text of works made available as "Open Access". Works made available under a Creative Commons license can be used according to the terms and conditions of said license. Use of all other works requires consent of the right holder (author or publisher) if not exempted from copyright protection by the applicable law.

(Article begins on next page)



# UNIVERSITÀ DEGLI STUDI DI TORINO

***This is an author version of the contribution:***

*Questa è la versione dell'autore dell'opera:*

*[Gonthier P., Visentin I., Valentino D., Tamietti G., Cardinale F. 2016. Science and Engineering Ethics, in press, DOI: 10.1007/s11948-016-9800-3]*

***The definitive version is available at:***

*La versione definitiva è disponibile alla URL:*

*[<http://link.springer.com/article/10.1007/s11948-016-9800-3>]*

# The legitimate name of a fungal plant pathogen and the ethics of publication in the era of traceability

## Abstract

When more scientists describe independently the same species under different valid Latin names, a case of synonymy occurs. In such a case, the international nomenclature rules stipulate that the first name to appear on a peer-reviewed publication has priority over the others. Based on a recent episode involving priority determination between two competing names of the same fungal plant pathogen, this letter wishes to open a discussion on the ethics of scientific publications and points out the necessity of a correct management of the information provided through Personal Communications, whose traceability would prevent their fraudulent or accidental manipulation.

**Keywords:** ethical conduct, *Gnomoniopsis castaneae*, *Gnomoniopsis smithogilvyi*, personal communications, scientific journals, species taxonomy

## Main text

Unraveling synonymies leads to a simplification of species taxonomy and to a reorganization of the scientific literature, but it is also pivotal to elucidate the biogeography of an organism and to define appropriate trade stipulations among nations. Correct and valid binomials are necessary for clear communication both among scientists and non-scientists. Nomenclature is so important to science and society that a series of international nomenclature rules has been drafted (McNeill et al. 2012).

The same fungal pathogen of chestnut (*Castanea* spp.) was independently described in 2012 as *Gnomoniopsis castaneae* (“*castanea*”) G. Tamietti *species nova* (Visentin et al. 2012) and *G. smithogilvyi* L.A. Shuttleworth, E.C.Y. Liew & D.I. Guest *species nova* (Shuttleworth et al. 2012), in Europe and Australasia, respectively. A recent paper in the Journal *Mycotaxon* (The International Journal of Fungal Taxonomy and Nomenclature) demonstrated the synonymy between the two species (Shuttleworth et al. 2015). When two synonyms are identified, the international nomenclature rules stipulate that the first name to appear on a peer-reviewed publication has priority over the other (McNeill et al. 2012; Hodkinson and Lendemer 2014). Based on an investigation on the exact publication dates of the two fungal descriptions, Shuttleworth et al. (2015) concluded that *G. smithogilvyi* has priority over *G. castaneae*. It is worth noting that Shuttleworth et al. (2015) reported the publication date of *G. castaneae* by citing a personal communication by the Managing Editor of the Journal of Plant Pathology (JPP), where the fungus was described. However, not only the date they reported is incorrect, but that communication to the authors never occurred, as confirmed by the JPP Managing Editor through a written personal communication. Incidentally, Visentin et al. (2012) was first validly published online on the JPP website as a full paper with DOI on May 21<sup>st</sup> 2012 (Tamietti 2016), while Shuttleworth et al. (2012) on June 4<sup>th</sup> 2012 (Shuttleworth et al. 2015), hence

the legitimate name of the fungal species is *G. castaneae*, which has priority over *G. smithogilvyi* (Tamietti 2016).

Surprisingly, the date of the first online publication by Visentin et al. (2012) was known to the Nomenclature Editor of *Mycotaxon* as early as 2013, since that date had been previously communicated to him, upon specific request, by the JPP Managing Editor. Both Editors recently confirmed this fact.

Inexplicably, the governance of *Mycotaxon* repeatedly refused to publish an *errata corrige* as required by both the JPP Managing Editor, whose name had been associated with the false declaration related to a personal communication that never occurred, and ourselves, as authors of Visentin et al. (2012). The reasons provided for the refusal were unfounded and each time different, ranging from claiming that the first online publication by Visentin et al. (2012) consisted of an abstract only, based on a declaration of Dr. Lucas Shuttleworth, to the fact that the paper was uncitable.

Beyond the nomenclatural formalisms, should we care about the correctness of what is published in scientific journals? While the assignment of either name may be of minor importance for practical issues in plant pathology, it plays a relevant role on the impact of the research. It is worth noting that the evaluation of scientists is increasingly based on bibliometric parameters linked to citations, which may also affect funding opportunities. Furthermore, citations influence the impact factor and ranking of scientific journals. Thus, writing and publishing a false: whose advance? Even assuming that such inappropriate practice is irrelevant for determining the priority and for strict nomenclatural purposes, should we accept this *modus operandi* under ethical and epistemological perspectives?

In this era characterized by an imperative struggle towards traceability and reproducibility of data and methods, concretized by the availability of plagiarism detection systems, public repositories, open-source platforms and shared knowledge (e.g. GenBank, Dryad, GitHub, QGIS, R, LaTeX), can we take for granted the ethics underlying the information provided? Do we need further mechanisms of traceability for the credibility of scientific publications? If so, unpleasant episodes like the one mentioned above could be avoided through the adoption by Journals of a few simple editorial rules: indicating the date of first online publication on each paper and asking for a written document signed by the persons providing personal communications to authors. The former rule would simplify the process of priority determination, while the latter would prevent the manipulation, either fraudulent or accidental, of personal communications.

## References

Hodkinson, B. P., & Lendemer, J. C. (2014). A clarification of effective electronic publication. *Taxon*, 63, 911–913.

McNeill, J., Barrie, F. R., Buck, W. R., Demoulin, V., Greuter, W., Hawksworth, D. L., Herendeen, P. S., Knapp, S., Marhold, K., Prado, J., Prud'homme van Reine, W. F., Smith, G. F., Wiersema, J. H., & Turland, N. J. (2012). International Code of Nomenclature for algae, fungi, and plants

(Melbourne Code) adopted by the Eighteenth International Botanical Congress, Melbourne, Australia, July 2011. Koeltz Scientific Books. Published online. <http://www.iapt-taxon.org/nomen/main.php>. Accessed 17 May 2016.

Shuttleworth, L. A., Liew, E. C. Y., & Guest, D. I. (2012). Fungal Planet description sheet 108: *Gnomoniopsis smithogilvyi* L.A. Shuttleworth, E.C.Y. Liew & D.I. Guest, sp. nov. *Persoonia*, 28, 142–143.

Shuttleworth, L. A., Walker, D. M., & Guest, D. I. (2015). The chestnut pathogen *Gnomoniopsis smithogilvyi* (Gnomoniaceae, Diaporthales) and its synonyms. *Mycotaxon*, 130, 929–940.

Tamietti, G. (2016). On the fungal species *Gnomoniopsis castaneae* ("castanea") and its synonym *G. smithogilvyi*. *Journal of Plant Pathology*, 98, doi:10.4454/JPP.V98I2.001.

Visentin, I., Gentile, S., Valentino, D., Gonthier, P., Tamietti, G., & Cardinale, F. (2012). *Gnomoniopsis castanea* sp. nov. (Gnomoniaceae, Diaporthales) as the causal agent of nut rot in sweet chestnut. *Journal of Plant Pathology*, 94, 411–419.