

## NOTE ON THE TERMS "LECTOTYPE" AND "NEOTYPE"

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In the last volume of *Watsonia*, Dr. J. Heslop Harrison (1950, 366) refers to Vermeulen's (1947, 110, 116, 121) designation of a specimen of *Orchis cruenta* O. F. Muell., collected by Warodell in Jämtland, Sweden, in 1908, as the 'lectotype' or 'electotype' (sic!) of Mueller's (1782) species, originally described and figured from the adjacent part of central Norway. As Vermeulen's action involves a misconception of the meaning of the term 'lectotype,' a few words of clarification may be appropriate.

The essential point about a lectotype is that it must be chosen from the original material—whether specimens, figures or descriptions—at the disposal of the original author of the name of the taxon\*. The following (subject to minor editorial modification) is the definition of 'lectotype' adopted, after considerable discussion, by the Nomenclature Section of the International Botanical Congress at Stockholm in 1950:—

A *lectotype* is a specimen or other element selected from the original material to serve as nomenclatural type when the holotype was not designated at the time of publication or so long as it is missing. [Cf. de Wit, 1950, 220, 203.]

It thus clearly follows that material collected in 1908 cannot possibly be designated as the lectotype of a species described in 1782!

The only possible 'lectotype' of *Orchis cruenta* that could be chosen, in the absence of the original specimens, would be Mueller's plate in the *Flora Danicæ*. So long as this is available, it is not even possible to indicate a 'neotype,' though this is a term that Vermeulen might, at a stretch, have applied to the 1908 material with rather more justification. The definition of 'neotype' adopted at Stockholm is as follows:—

A *neotype* is a specimen selected to serve as nomenclatural type so long as all of the material on which the name of the taxon was based is missing. [Cf. de Wit, l.c. 201, 203.]

It is true (apparently), in the case of *Orchis cruenta*, that "all of the material"—in the sense of *specimens*—"on which the name of the

\*"Taxon—a taxonomic group of any rank generally." "Taxonomic groups of any rank will, in the Rules, generally be referred to as taxa (singular: taxon)" (Art. 8).—de Wit, 1950, 201.

†The term "lectotype" is, however, not properly applicable in this case, since in the absence of specimens the plate plus description become practically equivalent to a holotype.

taxon was based is missing," but it is clear that those who framed the definition would have regarded a painting, drawing or photograph of the original material as equivalent, for this purpose, to the material itself. No true neotype for *O. cruenta* is therefore necessary.

It does not, moreover, appear to have been realised, or at least not clearly pointed out, by Vermeulen, that the variety *subelliptica* of Neuman (1906, 156), of which the latter author cited the Warodell material from Jämtland as being a "typical example," was in fact proposed by Neuman as the 'type variety' of *O. cruenta*, for he (Neuman) published it as follows:—"a *subelliptica* nov. nomen; fig. fl. D. n:o 876; . . . [3-line description] . . . Typiska exemplar samlade på Frösön i Jmtl. af Warodell." The type of var. *subelliptica* Neum. therefore coincides with the type of *O. cruenta* itself; it is (now) the plate in *Flora Danica*. The expression "nov. nomen," instead of "nov. var." as in other varieties proposed by Neuman, clearly indicates the author's intention. Under a new rule (Art. 28 bis; cf. de Wit, l.c. 209) passed at Stockholm last year, this type variety will become *O. cruenta* O. F. Muell. var. *cruenta* (without name of authority), with var. *subelliptica* Neum. as synonym. The Jämtland specimen collected by Warodell will merely be illustrative material regarded by Neuman as referable to the type variety.

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