## *Calla*—An Enigmatic Aroid Taxon and Its Etymological Solution

Dr. Helmut Genaust Hansjakobstr. 10 D-79183 Waldkirch, Germany

Until the present time, the genus Calla, described and introduced by Linnaeus in 1753, is believed, for the majority of both botanists and linguists, to be derived from a Latin plant name calla, presumably attested in the Natural History of Pliny the Elder and meaning the arum lily, water arum, or wild calla (Calla palustris). This word should take its origin and signification from ancient Greek kallaia 'cock's wattles' or more likely, from Greek kallos 'beauty', as if this Mediterranean member of the arum family would exhibit an outstanding degree of beauty, be the embodiment of splendor and magnificence that we, the friends and freaks of the Araceae, admire in so many kinds of this plant family.

That this cannot be reasonably accepted, may be clearly demonstrated as well from the botanic as from the linguistic point of view.

As to the botanical aspect, nobody will deny that Calla palustris is, with its white spathe and green pistils, in some way a nice, even attractive plant, especially for hungry insects and slugs, but in no case it reaches that degree of beauty which has been accorded to the white lily or the lotus flower, for instance, or selected members of the arum family representing ornamental plants. Among them, we find another genus (Zantedeschia Sprengel) generally bearing the common name calla, in English 'calla lily or arum lily' or in German Zimmerkalla ('chamber calla'), thus distinguished from Sumpfkalla ('swamp calla'---Calla palustris). But there is no evidence that this common name of the ornamental plants is taken from Greek kallos, considering the fact that the genus Zantedeschia has been separated from the genus Calla and that its species occur almost completely in the southern parts of Africa and, therefore, were unknown to the ancient Mediterranean peoples.

If these remarks seem not yet sufficient, more important arguments arise from the linguistic side. No concrete etymology for the taxon *Calla* can be given before the history of the denomination of this member of the arum family has been studied in its decisive steps from the Roman era via the pre-Linnaean botanists of the Renaissance until 1753, the year when the taxonomic system of plant names is accepted.

That *calla* cannot be a Latin word—and this means, in a stricter definition of the term of Latin, that is did not belong to the language of the ancient Roman Empire, is very quickly shown by a glance into any complete and reliable present-day Latin dictionary where a term like that is lacking. As early as in the first edition of my Etymologisches Wörterbuch der botanischen Pflanzennamen, published in 1976, I left no doubt that, contrarily to the common opinion, Calla could not be derived from a similar Latin form and that, therefore, neither Pliny nor any other ancient author could have given, for any member of the Araceae, an expression of the name calla or kalla. These doubts found the first support by Dan H. Nicolson, in his contribution Derivation of Aroid Generic Names (Aroideana 10, No. 3, 1987, published July 1988, p. 18). Nicolson confirms that the taxon Calla is at least of unknown origin, speculations about its derivation involving less likely such usually presented etymologies like those quoted above. But there was some evidence that, according to Caspar Bauhin, Pliny used a similar term for denominating two kinds of aroids.



Fig. 1. Calla palustris. Photo J. Bogner.

In the third edition of my *Etymologisch*es Wörterbuch der botanischen *Pflanzennamen*, p. 117, I gave some wider-spreaded reflexions about the enigmatic origin of the genus *Calla*, including the history of early denominations of the plants and exposing ways to a possible solution based on the morphological characteristics of *Calla palustris*. But even when there may have existed a link to the name of the calmus (*Acorus calamus*), this solution does not completely satisfy because the phonetic problems are not sufficiently clarified.

On the basis of new documents I received in 1997, by courtesy of Josef Bogner (Munich), a better light is now thrown upon the pre-Linnaean epoch. The first to mention the arum lily, after the Middle Ages, is Rembertus Dodonaeus (1516/17– 1585), in his work *Purgantium aliarumque* ... berbarum historiae libri IIII, published at Antwerp in 1574; but here, he calls, in chapter VII, the plant *Dracunculus aquatilis*, referring to Pliny, *Nat. hist.* 24, 16, without citing any name like *calla*.



Fig. 2. *Calla palustris*. A, habit; B, spadix; C, flower; D, gynoecium, longitudinal section; E, infructescence; F, seed, side view. Taken from Mayo et al., *Genera of the Araceae*. Drawn by E. Catherine.

In the posthumous edition of his *Stirpium historiae pemptades sex* (Antwerp 1616), there is given, in chapter VII, almost the same text.

It is, indeed, Caspar Bauhin (1560–1624) who, in his Pinax theatri botanici (Bâle 1623), book V, sect. VI, p. 195s., guotes, for the first time, two kinds of the arum family under the names of Callae primum genus Plinii, Dalech[ampius] in Plin., respectively, which is a form of Arum italicum with white-veined leaves (venis albis), and Callae alterum genus Plinii, Dalech/ampius), which corresponds to Arisarum vulgare. For the present-day user, it is necessary to know that Caspar Bauhin lists, in Pinax, the mass of synonyms which existed already at his epoch for more than 6,000 species of plants. Thus, Calla, the nominative case of Callae, is only one of those numerous synonyms.

Contrarily, in the Horti academici Lugduno-Batavi catalogus (Leyden 1687), one of the last important botanical indices written before Linnaeus, Paulus Hermannus (1640–1695) renounces to mention, when citing Dodonaeus and Caspar Bauhin, the synonymous term Calla; he prefers Arum palustre, radice arundinaceâ, for to name Calla palustris.

So, it is definitively Linnaeus himself who, in his great work of classifying the realm of plants, created Calla as a new aroid generic taxon, separating it from other genera like Arum, Arisarum, Dracontium, or Dracunculus. From that time on, the old synonym Calla as used by Jacques Daléchamps and cited as a Plinian word, ranks, even today, as an official taxon. But the question is: What did Pliny really write, and did Linnaeus quote his books? Yes, he did, but the extant editions of Pliny offered, at least half a century before the beginning of the painstaking work of critical text presentation in Classical Philology as a new linguistic science, word forms that did not satisfy the modern demands.

As an example, the edition of Pliny commented by Johannes Harduinus (including remarks of botanists like Dalechampius and Gronovius) and completed by Franzius (vol. 8, Leipsic, 1788), offers, in book XXVII, chapter 36, the following form: Calsa duorum generum est. Una similis aro, etc. The commentary is rather instructive: *calsa* is said to be the version of all manuscripts, and expressly not calla, even when there was, just at that time, some probability that Pliny could have written calix. or, in the Greek accusative case, calica for naming a plant like Arisarum: "Calicem arisaron vocatum fuisse arbitror, quod eius fructus calice conuoluatur membranoso" (I think that arisaron has been named *calix*. for its spadix is enveloped in a membraneous calyx or flower-cup), is cited as the opinion of Daléchamps. The last to give Calla as a Plinian word form ("ubi Hard. legit Calsa", where Harduinus is reading calsa) is Johannes Beckmann, in his Lexicon Botanicum, published in 1801 (p. 44).

The reasonable ideas formulated in Harduinus' commentary obviously opened the way to the search of the correct ancient reading and to a convincing solution of its etymology. According to the well-founded work of Jacques André, Les noms de plantes dans la Rome antique (Paris 1985), the best word form is now the nominative case calyx, transcription of Greek kályx and identical with calyx still used by English-speaking botanists as a term for the floral envelope. In the first citation (Plin. 27, 36), calyx is defined, by André, as either Arisarum vulgare or Arisarum proboscideum, aroids known from the Mediterranean region.

As to the etymology, doubts are no longer useful. The genus *Arisarum* has got its ancient Latin name *calyx* in regard to its conspicuous spatha which envelops the spadix like a hood (whence the French name *capuchon*), or, as a parallel to other plant families, like a large calyx protecting the inflorescence. And as demonstrated above, evidence is given to the way how *Calla* got its modern generic name which, now, should have lost the status of an enigmatic aroid taxon.