

A MISREPRESENTATION THROUGH A MISLEADING DIAGNOSIS IN WINBERG'S FLORULA JAVANICA

by

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Spiranthes sinensis (Pers.) Ames, also known under the synonym *S. australis* (R. Br.) Lindl., is a terrestrial orchid widely spread in Asia, which is rather well known in Western Europe, because it has repeatedly been found growing spontaneously in pots in orchidhouses.

In *Blumea* 6(2): 361 (1950) the plant described as *Ophrys lancea* Thunb. ex Sw. was considered to be identical with the first and it was thought that the recombination *Spiranthes lancea* (Thunb. ex Sw.) B. B. S. was necessary. The reasons given for this transfer were:

(1) the short diagnosis of *Ophrys lancea* given by Winberg in *Florula Javanica*, p. 8 (1825);

(2) the original diagnosis of *O. lancea* in Swartz's well-known dissertation on the classification of orchids in *Kongl. Vet. Akad. Handl. Stockh.* 21: 223 (1800);

(3) the presence of the apparent holotype in the Thunberg herbarium (Uppsala).

Since a certain phrase in the diagnosis of *O. lancea* in *Florula Jav. l. c.* made me feel doubtful about the correctness of the identification, all points were verified. It appears that the plant under discussion not only differs specifically from the above-mentioned species of *Spiranthes*, but even belongs to a different tribe.

Ad (1) The relevant diagnosis in *Flor. Jav. l. c.*, reads: "*Ophrys lancea*: Labium trifidum. Folia radicalia & caulina lineari-lanceolata, glabra. Spica spiralis, palmaris". The indication "labium trifidum" is not characteristic of a *Spiranthes*, at best it could be "labium obsolete trilobum", but at any rate it cannot apply to *Spiranthes sinensis*.

Ad (2) A perusal of the data regarding *Ophrys lancea* in Swartz's original diagnosis does not provide any indication pointing to a *Spiranthes*. In Swartz's paper (*l. c.*, p. 202—254 and the legend opposite p. 138) the *Orchidaceae* were subdivided on account of the morphology of the anther into a number of large genera which later became the tribes *Ophrydeae*, *Neottieae*, etc.

The group of orchids referred by Swartz to the genus *Ophrys*, which included *O. lancea* Thunb., consists exclusively of unspurred *Ophrydeae*, such as e. g. *Herminium monorchis* (L.) R. Br., *Chamaeorchis alpina* (L.) L. C. Rich., *Aceras anthropophora* (L.) R. Br. and *Ophrys myodes* L. There is no reason to doubt that *O. lancea* also belongs to the group of ecalcarate *Ophrydeae*.

If there had been any doubt, Swartz would certainly have placed this species among the "dubiae" appearing on the same page. Moreover, (l. c., p. 226) he referred all species of *Spiranthes* known to him, to the genus *Neottia*, a part of the later *Neottieae*.

Although the arrangement of *O. lancea* under this particular group of the *Ophrydeae* alone is sufficient to establish its place in the system, Swartz's diagnosis provides additional and consistent information. Regarding *O. lancea*, belonging to the unspurred *Ophrydeae*, the indication "e Java" is already very significant, because in Java there is only a single representative of the ecalcarate *Ophrydeae* that comes into consideration, viz. the species hitherto known as *Herminium angustifolium* (Lindl.) Benth. The only alternative, *Sylvorchis colorata* J. J. S. in Bull. Dept. Agric. Ind. Néerl. 13: 2-7, t. 1 (1907) is a very rare endemic saprophyte and it is most unlikely that this plant was ever collected during Thunberg's fleeting visit to the island.

If one compares the description of the lip in Swartz's concise diagnosis of *Ophrys lancea* with the lip of the *Herminium* species, there can be but very little doubt that Swartz described this *Herminium*. Swartz's description reads "labello sublineari deflexo trifido, medio obsoleta". The corresponding description of *Aceras angustifolia* Lindl. Bot. Reg. sub t. 1525 (1832), the basionym of *H. angustifolium* reads: "labello pendulo lineari . . . apice trifido: lacinia intermedia brevior" and here again is good agreement (fig. 1a).

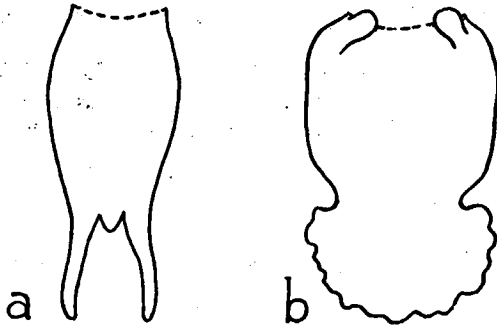


Fig. 1. a. Lip of *Herminium lanceum*. — b. Lip of *Spiranthes sinensis*.

The original description of the lip of *Neottia australis* R. Br., Prodr. 319 (1810), the basionym of *Spiranthes australis*, reads: "labello indiviso oblongo crispato" and this species obviously need not be considered (fig. 1b).

Ad (3) Through the courtesy of Prof. Dr. J. A. Nannfeldt to whom I am much indebted for his generous assistance, I could study the specimen of *Ophrys lancea* preserved in Thunberg's herbarium, which must be the specimen studied by Swartz and undoubtedly represents the holotype. It is indeed identical with *Herminium angustifolium*.

As regards the misleading phrase "Spica spiralis", used by Winberg in his description in Flor. Jav. and suggestive of a species of *Spiranthes*, this term was applied by Winberg in a general sense to denote the helical arrangement of the flowers in the inflorescence (which applies to practically all

terrestrial orchids) and not to describe a helical twist of the axis of the spike so characteristic of the genus *Spiranthes*.

As regards the correct synonymy, it is incomprehensible to me why *Ophrys lancea* Thunb. ex Swartz was omitted (overlooked?) in Lindley's Gen. & Spec. Orch. (1830—1840), although this species is mentioned in Willdenow's edition of Spec. Pl. 4, pars 1: 64 (1805) as *Ophrys lancea* Thunb. and by Persoon in his Syn. 2: 507 (1807) as a species of *Satyrium* (sect. *Aceras!*), and both works as well as Swartz's own dissertation are repeatedly cited by Lindley under other species.

Ophrys lancea is obviously the oldest name and a new combination under *Herminium* is required:

Herminium lanceum (Thunb. ex Sw.) J. Vuijk, comb. nov.

Ophrys lancea Thunb. ex Sw. Kongl. Vet. Akad. Handl. Stockh. 21: 223 (1800); Willd., Sp. Pl. 4, 1: 64 (1805);

Satyrium lanceum (Thunb. ex Sw.) Pers. Syn. 2: 507 (1807);

Aceras angustifolia Lindl. Bot. Reg. sub t. 1525 (1832);

Herminium angustifolium (Lindl.) Benth. ex Hook. f., Fl. Br. Ind. 6: 129 (1894).

Spiranthes lancea (Thunb. ex Sw.) B. B. S., Blumea 6(2): 361 (1950), quoad comb. tantum, exclus. synonym., non *Spiranthes sinensis* (Pers.) Ames.

The binomial *Spiranthes lancea* thus nomenclaturally becoming a synonym of *Herminium lanceum*, the valid name to be used for the *Spiranthes* species erroneously identified with *Ophrys lancea*, remains *Spiranthes sinensis* (Pers.) Ames.

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