A BINARY NAME FOR THE HYBRID WATERCRESS

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It is clear that the wild triploid hybrid watercress, *Nasturtium microphyllum* (Boenn.) Reichb. × *N. officinale* R. Br., is, at least in Britain, almost as important an element, both floristically and ecologically, as either of the parent species (Howard & Manton, 1946, 8). According to Howard (1947, 454), moreover, it is one of the two forms of watercress of economic importance, for it is the source of the 'brown,' or 'winter,' cress of commerce, 'green' cress being *N. officinale*. The tetraploid species, *N. microphyllum*, is apparently not grown commercially.

Binary names have undoubtedly, in the past, been bestowed much too freely on hybrids of rare or ephemeral occurrence. Where, however, a hybrid forms a significant component of the natural vegetation or (as, for example, in *Ulmus* or *Salix*) of the scenery, there would seem to be a good case for giving a binary name, and such case is strengthened when, as with the watercresses, commercial interests also are concerned. The hybrid formula, though informative and frequently necessary for precision, is too cumbersome and inconvenient for repeated use.

The following binomial is therefore proposed for the hybrid watercress. In deference to the taxonomic views of Schulz (1936, 551-5) and Hylander (1950, 1-13), the genus *Nasturtium* R. Br., 1812, is united with *Rorippa* Scop., 1760. On a world view of the group there would appear to be good reasons for this course. The correct name for the combined genus, is thus (contrary to Schulz and in agreement with Hylander), *Rorippa*.

Rorippa × **sterilis** Airy Shaw, nom. nov.

Nasturtium uniseriatum How. & Mant. × *N. officinalis* R. Br., Howard & Manton, 1946, *Ann. Bot.*, n. ser., **10**, 11-12; Howard, 1947, *Agriculture*, **53**, 454-5, tab. opp. 451.

N. officinale × *uniseriatum*, [Hyde], 1948, *Rep. Bot. Soc. & E.C.*, **13** (3), 257.

N. microphyllum Boenn. ex Reichb. × *N. officinale* R. Br., Airy Shaw, 1947, *Kew Bull.*, **1947** (1), 45, [et] 1948 [in] Riddelsdell, Hedley & Price, *Fl. Glos.*, 610; Carrothers, Meikle & Moon, 1949, *Irish Nats. Journ.*, **9**, 225, 304; Airy Shaw in Wilmott (ed.), 1949, *Brit. Fl. Pl. & Mod. Syst. Meth.*, t. X; Howard & Lyon, 1950, *Watsonia*, **1** (4), 232, fig. 1.

N. officinale × *microphyllum*, Wilmott, 1948, *Rep. Bot. Soc. & E.C.*, **13** (3), 248; Lawalrée, 1950, *Les Naturalistes Belges*, **31** (2), 31.

Rorippa microphylla (Boenn.) Hyl. × *Nasturtium-aquaticum* (L.) Hayek, Hylander, 1950, *Bot. Not.*, **1950** (1), t. V.

Rorippa Nasturtium-aquaticum × *microphylla*, Lawalrée, 1951, *Bull. Soc. Bot. France*, **97**, 213.

Habitus varius. *Infructescentia* saepe valde elongata, usque 30 cm. vel ultra. *Siliquae* imperfectae, irregulariter formatae, usque 1.6 (plerumque circiter 1.2) cm. longae, usque 1.5 (rarissime vix 2) mm. latae, apicem versus saepe attenuatae velut rostratae, plerumque cassae. *Semina* in quaque siliqua 0-2 (plerumque 0, et ubi formata saepe imperfecta); reticulationis testalis areolae per faciem 50-60, i.e. inter parentes medium tenentes.

Typus nominis *Rorippae sterilis* A.S.:—

ENGLAND. W. Norfolk (v.-c. 28); Gatton Water, Hillington, in chalk stream, 21 Aug. 1946, *E. L. Swann* 1533 in Herb. Kew (holotypus cum 3 isotypis). (For detailed British distribution, see Howard & Lyon, 1950, 232-3.)

Regarding the choice of the above-cited specimen to typify the new binomial, it was at first proposed to designate as type one of the specimens of the hybrid produced artificially by Howard & Manton, as represented by material deposited by Howard in Herb. Kew., linking it with Howard & Manton's (1946, 12) Latin diagnosis. It was, however, pointed out by a colleague that the parentage of this artificial cross was peculiarly 'disjunct,' the *officinale* parent originating from Zürich, Switzerland, while the *microphyllum* (*uniseriatum*) came from Wareham, Dorset. (See Howard & Manton, 1946, 2, footnote.) As the binomial is required expressly for the wild-growing hybrid, it is felt more appropriate that it should be typified by wild, rather than by experimentally produced, material.

NOTE ON THE OCCURRENCE OF THE HYBRID ON THE CONTINENT OF EUROPE.

Although Howard & Manton (1946, 8) refer to all three watercress types—diploid, tetraploid, and triploid hybrid—as being " important and widespread elements in the European flora," the extreme paucity of specimens of the *hybrid* in the large herbaria is very marked. At Kew, for example, there are approximately 35 continental gatherings of *officinale* (incl. var. *siifolium*), 11 of *microphyllum*, and only the two following of *R.* × *sterilis*:—

GERMANY. Thuringia: Immelborn, " Rhönbrunn," 27 June 1876, *G. Ruhmer* (Baenitz, Herb. Europaeum). Pommerania: Callies, pr. Gutzdorf, 18 July 1876, *P. Sydow* (Baenitz, Herb. Eur.).

In the herbarium of the British Museum (Natural History) the only certain specimen representing the hybrid appears to be the following:—

FRANCE. Hautes Alpes: ruisseaux aux environs de Gap, July 1853, *B. Blanc* (in C. Billot, *Fl. Gall. & Germ. exsicc.*, no. 1604).

It is not clear as to how far this reflects the relative frequency of occurrence of the three forms, or whether it may be due in some measure

to unconscious avoidance or rejection of hybrid material on the part of collectors, because of the badly formed fruit.

It is probable that one of Irmisch's observations (cf. Airy Shaw, 1947, 44) contains a reference to the hybrid: he remarks that, in his var. *brevisiliqua*, " frequently a number of seeds abort and the valves consequently present an uneven appearance." The form described by Glück (1936, 268) as ' var. *brevisiliqua*,' with fruits only 5-7.5 mm. long, is, as has already been suggested elsewhere (Airy Shaw, 1947, 45), almost certainly the hybrid.

Attention may be drawn to the fact that Sondershausen, where Irmisch studied the watercresses, is in Thuringia, only 25 miles N. of Erfurt, the principal centre of watercress growing in Germany (Manton, 1935, 134). It is also noteworthy that one of the only two continental specimens of the hybrid in the Kew Herbarium should originate from Thuringia.

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