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### IV. THE NAMES OF THREE SPECIES OF BRASSICA

#### LOUIS C. WHEELER

Three mustards introduced as weeds in North America are commonly known under untenable names. They have been known as *Brassica alba* (L.) Rabenhorst, *B. arvensis* (L.) Rabenhorst, and *B. adpressa* (Moench) Boiss. Under *Sinapis* the first two are perfectly valid. But *Sinapis* seems scarcely worthy of generic rank. The following study of the nomenclature of these three species is based on the synonymy given by O. E. Schulz, Pflanzenreich IV. 105(1):-1919. Of course the specific names cited under the varieties of each species are included in the elimination. The fact that Schulz considered the misapplication of a name as publication of a new species accounts for the large number of specific names attributed by him to various authors when the names were merely "sensu," i. e., misapplied.

BRASSICA HIRTA Moench, Suppl. Methodum Pl., 84. 1802. This is the earliest available name for what has long been known in American manuals under the name of Brassica alba (L.) Rabenhorst, Fl. Lusatica 1: 184. 1839 (Boissier, Voy. Espagne 2: 39. 1839-45 is more generally given as the combining author but the date of his publication is uncertain), based on Sinapis alba L., Sp. Pl. 2: 668. 1753; not Brassica alba Gilibert, Fl. Lituanica. I have not seen this reference, cited "ii. 63" by Index Kewensis (also cited "IV. (1782) 63," by O. E. Schulz, l. c., 83.), but I have seen what is supposed to be the same paper in Uster, Delectus Opusculorum Bot. 2: 361. 1785. Here Gilibert described his B. alba as a new species. There are the two following preoccupied names which are earlier than Moench's: Raphanus albus Crantz, Classis Cruciform. Emend., 109. 1769, proposed without reference to Sinapis alba L., though the same two pre-Linnaean polynomials are cited in both cases; not Brassica alba Gilibert, vide supra. "Sinapis nigra Kerner, Abbild. oekonom. Pflanz. V (1792) t. 465;" cited by Schulz, l. c., 130, but not confirmed, is preoccupied by Brassica nigra (L.) Koch, 1833, if it is not a mere misapplication of Sinapis nigra L.

BRASSICA kaber (DC.), comb. nov. Sinapis kaber DC., Syst. 2: 617. 1821.

This is the plant that, under the genus Brassica, has commonly been called *B. arvensis* (L.) Rabenhorst, Fl. Lusatica 1: 184. 1839, based on Sinapis arvensis L., Sp. Pl. 2: 668. 1753; not Brassica arvensis L., Mantissa, 95. 1767. Sinapis orientalis L., Cent. Pl. 1: 19. 1755; not Brassica orientalis L., Sp. Pl. 2: 666. 1753. "Sinapis arvensis Curtis, Fl. londin. 1. ed. II (1777-1787) t. 321," (Schulz, l. c., 123) was a mere varietal misapplication of Sinapis arvensis L. Raphanus orientalis Crantz, Classis Cruciform. Emend., 109. 1769, was published without reference to Sinapis orientalis L. but the same polynomial of Tournefort was cited under both; not Brassica orientalis L., 1753. Sinapis torosa Gilibert, Fl. Lituanica (reference not seen, given as "ii. 69" by Index Kewensis, and "IV. (1782) 69" by Schulz, l. c., 119) is an abortive name since, according to the transcript of the description kindly supplied by Mr. Ramsbottom of the British Museum, Sinapis arvensis L. was cited in synonymy. Illegitimate names are not to be taken into consideration for purposes of priority (Rules, Art. 60. 1935). "S. nigra Rozier, Dict. Univ. Agricult. VI. (1785) 676, t. 23;" (Schulz., l. c., 119) not seen, probably S. nigra L. sensu Rozier; if not, preoccupied by Sinapis nigra L., 1753. Raphanus arvensis Crantz, Classis Cruciform. Emend., 109. 1796, not based on Sinapis arvensis L. but description identical and the same two pre-Linnaean polynomials cited in synonymy, not Brassica arvensis L., 1767. "Sinapis orientalis Schkuhr, Bot. Handb. II. (1805) 264, t. 186, non L." (Schulz, l. c., 123-4) must be S. orientalis L. sensu Schkuhr. There are no authors cited by Schkuhr for adjacent species in this genus but in view of the fact that the Sinapis names are identical with those published by Linnaeus it seems reasonable to consider them as Linnaean species. Even if this were a new species it is preoccupied under Brassica by B. orientalis L., 1753.1 "Raphanus raphanistrum Kerner, Oekon. Pfl. II. (1788) 98, t. 166, non L." (Schulz, l. c., 119) is probably a sensu name but the reference is not available. If it is new it is preoccupied by R. Raphanistrum L., 1753. "S.[inapis] hispida Balbis, Miscell. Bot. (1804-1806) 33, non Schousb." (Schulz, l. c., 123) is really a sensu name which traces nomenclatorially to S. hispida Schousb. which Schulz, l. c., 134, identifies with S. flexuosa Poiret. Sinapis polymorpha Generisch apud Schultes, Obs. Bot., 133. 1809, is an apparently abortive name seemingly based on S. laevigata L.; not Brassica polymorpha Murray "in Nov. Comment. Soc. Reg. Scient. Gotting. VII. (1776) 35 t. VI"

<sup>&</sup>lt;sup>1</sup> The date given by Schulz, l. c., 123, for Schkuhr's Handb. seems to be in error. Pritzel lists two editions only and both are before me. Vol. 2, ed. 1, bears the date 1791, vol. 2, ed. 2, bears the date 1808. Pagination is identical at least for *Sinapis* orientalis.

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(Schulz, l. c., 84), original not seen but the name checked in Linn. Syst. Veg. ed. 14: 601. 1784. Sinapis villosa Mérat, Nouv. Fl. Envir. Paris, 265. 1812; not Brassica villosa Bivona-Bernardi. "Stirp. rar. Sicil. descr. Manip. IV. (1816) 20;" (Schulz, l. c., 38), not seen but confirmed in Sprengel, Syst. Veg. ed. 16, 4: Cur. Post. 243. 1827. "S.[inapis] taurica Fischer!, Catal. Hort. Gorenk. (1812) 51; DC. Syst. II. (1821) 617 et Prodr. I. (1824) 219 (excl. Marsch. Bieb.)," (Schulz, l. c., 119), is another sensu name. This name was first published by Fischer in his Catalogue du Jardin des Plantes du Comte A. de Razoumoffsky à Gorenki, ed. 2:51. 1812, where it appears without description and is credited to M.[arschall von] B.[ieberstein]. As Fischer learned later, the plants raised in Razoumoffsky's garden from seeds sent by Marschall were not the plant which Marschall described in 1819, which was Brassica geniculata (Desf.) Ball, but Sinapis arvensis, as was shown by Fischer & Meyer, Index Seminibus Hortus Petropolitanus 1: 38. 1835. It is easy for confusion to arise in plants raised from seeds. Garden labels may be misplaced or the wrong seeds may have been planted. Whatever caused the confusion, the error was not rectified in time to prevent de Candolle from drawing his description for the Systema and Prodromus at least in part from a specimen prepared by Fischer from the plant of the Razoumoffsky garden. This explains Schulz' citation. . . "S. incana Kit. ap. Schultes, Österr. Fl. 2. Aufl. II. (1814) 265, non L.," (Schulz, l. c., 123) is really S. incana L. sensu Kit., for, through the reference "S. P. III. 558.," it traces through Willd., Sp. Pl. 3(1): 558. 1801 (date fixed by Rules, Art. 45. 1935), to L., Cent. Pl. 1: 19. 1755. Sinapis retrohirsuta Besser apud Steudel, Nomencl. ed. 1: 782. 1821, nomen nudum.

The specific name Brassica kaber applies to the plant called Sinapis arvensis L. var. brevirostris (Spach) O. E. Schulz. This is not the plant of America according to Schulz' interpretation. The two following varietal names apply to the plants of the New World:

BRASSICA KABER (DC.) Wh. var. pinnatifida (Stokes) comb. nov. Sinapis arvensis L.  $\beta$  pinnatifida Stokes, Bot. Mater. Medic. 3: 478. 1812. Type-locality: apparently England. (S. arvensis  $\alpha$  integrifolia Stokes, l. c., 477). This is typical Brassica arvensis (L.) Rabenhorst. (B. sinapistrum Boiss., Voy. Espagne 2: 39. 1839–45, based on Sinapsis arvensis L.).

BRASSICA KABER var. Schkuhriana (Reichenb.) comb. nov. Sinapis Schkuhriana Reichenbach, Icones Fl. Germ. 2: 20, t. 87, fig. 4425b. 1837–8. S. arvensis L. β Schkuhriana Reichenb. apud Hagenbach, Fl. Basil. Suppl., 138. 1843. Brassica arvensis (L.) Rabenh. var. Schkuhriana (Reichenb.) Thellung apud Schinz & Keller, Fl. Schweiz. ed. 3, 2: 131. 1914.

BRASSICA GENICULATA (Desf.) J. Ball in Journ. Linn. Soc. Bot. 16: 327. 1878, based on *Sinapis geniculata* Desf., Fl. Atlantica 2: 98. 1798.<sup>1</sup> Type-locality: North Africa.

This is the plant which has generally passed as Brassica adpressa (Moench) Boiss. in California, where it is a common weed. The following synonymy shows why B. geniculata is the valid name for this species. Sinapis incana L., Cent. Pl. 1: 19. 1755, basis of Brassica incana (L.) Meigen, Deutschl. Fl. 3: 270. 1842; not Tenore, Prod. Fl. Napol., p. xxxix. 1811-15 (not seen but kindly verified by Miss M. L. Green of Kew). Raphanus incanus Crantz, Classis Cruciform. Emend. 110. 1769, proposed without reference to Sinapis incana L. but doubtless identical since the same polynomial is cited; not Brassica incana Tenore, 1811-15. "Sinapis incana Jacq. Hort. Vindob. 2: 79, t. 169. 1772," cited by Schulz, l. c., 141, under Hirschfeldia incana (L.) Lagrèze-Fossat var. hirta (Babington) O. E. Schulz, is really Sinapis (or Hirschfeldia) incana L. sensu Jacq. which was merely a varietal misapplication. Hirschfeldia adpressa Moench, Method., 264. 1794 is an abortive name, since Sinapis incana L. was cited in synonymy, consequently this name is not to be considered for purposes of priority (Rules, Art. 60. 1935), and Brassica adpressa (Moench) Boiss., Voy. Bot. Espagne 2: 38. 1839-45, must not be used since there are earlier available names. "Sinapis nigra Pallas, Tabl. Taurid. (1795) 54;" (Schulz, l. c., 137), is probably S. nigra L. (1753) sensu Pallas; if not, it is preoccupied both under Sinapis and under Brassica.

# V. POLYGONUM KELLOGGII AND ITS ALLIES

## LOUIS C. WHEELER

This paper presents a taxonomic synopsis of five small annual species of *Polygonum*, section *Avicularia*, of which *P. Kelloggii* Greene is the most widespread. The confusion as to the identity of the types of the species as well as to their delimitation makes this synopsis worth while. The following key summarizes the specific distinctions:

Anther-bearing stamens 8.

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Leafy bracts of inflorescence well differentiated from leaves of lower stem by an evident white margin and greater relative breadth.

<sup>&</sup>lt;sup>1</sup>Stearn, Journ. Soc. Bibliogr. Nat. Hist. 1: 147-8. 1938.



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