NEW COMBINATIONS IN CACHRYS L. AS A GENUS DISTINCT FROM HIPPOMARATHRUM LINK

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ABSTRACT. Fourteen new specific combinations, and two at infra-specific level, are made in the SW Asiatic genus *Cachrys* (Umbelliferae). These are necessitated by the recognition of *Cachrys* as a genus independent of *Hippomarathrum*; the characters on which the two genera are recognised are listed.

In a recent publication by Gruenberg-Fertig, Heyn & Herrnstadt (*Taxon* 22:425–434, 1973), the type species of *Cachrys* L., *C. libanotis*, is typified by a specimen of Burser's which is identical with *C. trifida* Mill. (=*C. laevigata* Lam.). This concept differs from that sometimes adopted for *C. libanotis* as being a species of *Hippomarathrum* Link.** If one accepts our typification of *Cachrys*, *Hippomarathrum* may be retained as an independent genus.

The boundary between *Cachrys* auct., with wingless corky fruits, and *Prangos*, with winged less suberized fruits, is quite indistinct and we regard *Prangos* as a synonym of *Cachrys*. Previously (*Flora of Turkey* 4:382–388, 1972) the present authors included under the name *Prangos* species of both *Cachrys* and *Prangos*; *Hippomarathrum* was retained for a group of species related to *Prangos* (Chamberlain, *op. cit.*, 390–393). In *Flora Europaea* (2:343–344, 1968) Tutin, in contrast to the generic limits adopted in *Flora of Turkey*, included *Cachrys*, *Prangos* and *Hippomarathrum* in the one genus *Cachrys*.

Our recent morphological and anatomical studies have led us to the conclusion that *Cachrys* and *Hippomarathrum* merit separate recognition. A detailed presentation of characters is given in the following table.

TABLE 1

Comparison between *Cachrys* and *Hippomarathrum*

Fruit	*Hippomarathrum* Link	*Cachrys* L.
Size	usually to 10 × 5 mm	usually over 10 × 5 mm
Shape	obpyriform or globose	ellipsoid or ovoid, rarely pyriform or globose
Ribs	conspicuous, sometimes crested, never winged	from smooth to winged
Position of stylopodium	protruding from fruit apex (Fig. 1, a, b)	sessile or embedded in fruit apex (Fig. 1, c, d, e)
Anatomy	mesocarp layer much thinner than endosperm	mesocarp layer usually much wider, rarely as wide as endosperm
	mesocarp mainly sclerenchymatous, suberized tissue very thin (Fig. 1, f)	mesocarp suberized throughout, without sclerenchymatous tissue (Fig. 1, g)

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** Proposed for conservation (*Taxon*, 23:438–440, 1974) against *Hippomarathrum* P.G. Gaertn., B. Mey. & Scherb.

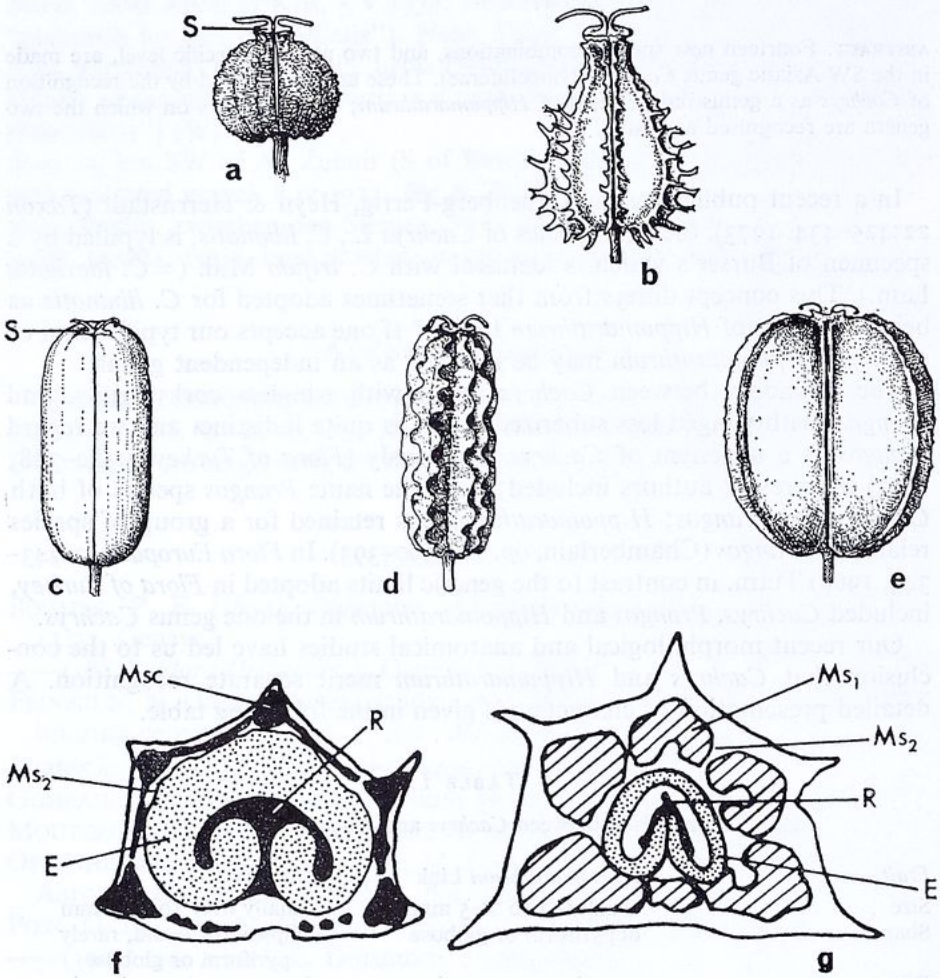

FIG. 1. *Hippomarathrum* and *Cachrys* species. a–e, fruits (lateral view): a, *H. boissieri* Reut. & Hausskn.; b, *H. cristatum* (DC.) Boiss.; c, *C. odontalgica* Pallas; d, *C. pabularia* (Lindl.) Herrnst. & Heyn; e, *C. ferulacea* (L.) Calest., all × 3 (S, stylopodium). f & g, cross-sections of mericarps: f, *H. cristatum* × 4; g, *C. ferulacea* × 2, (R, raphe; E, endosperm; M, mesocarp; Msc, sclerenchymatous tissue; Ms_1, dense suberized tissue; Ms_2, loose suberized tissue).

Several species of *Cachrys*, in the sense adopted here, were either originally described as *Cachrys* (often owing to the difficulties in delimiting *Cachrys* from *Prangos*) or have lately been transferred to *Cachrys* by Tutin, *op. cit.*

However we find that the following new combinations are necessary*:

Cachrys asperula (Boiss.) Herrnst. & Heyn, **comb. nov.** ssp. **asperula**.
Syn.: *Prangos asperula* Boiss. in Boiss., Diagn. ser. 1, 10:54 (1849).

C. asperula ssp. **haussknechtii** (Boiss.) Herrnst. & Heyn, **comb. et stat. nov.**
Syn.: *P. haussknechtii* Boiss., Fl. Or. 2: 940 (1872).

C. bucharica (Fedtsch.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. bucharica* Fedtsch. in Bull. Herb. Boiss. 7:179 (1899).

C. calligonoides (Rech. fil.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. calligonoides* Rech. fil. in Anz. Oesterr. Akad. Wiss. Math.-Nat. Kl. 89:197 (1952).

C. corymbosa (Boiss.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. corymbosa* Boiss. in Ann. Sci. Nat. Bot. ser. 3,2:81 (1844).

C. denticulata (Fisch. & Mey.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. denticulata* Fisch. & Mey. in Ann. Sci. Nat. Bot. ser. 4,1:35 (1854).

C. hermonis (Boiss.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. hermonis* Boiss., Fl. Or. 2:943 (1872).

C. latiloba (Korovin) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. latiloba* Korovin in Not. Syst. Herb. Hort. Petrop. 5:74 (1924).

C. meliocarpoides (Boiss.) Herrnst. & Heyn, **comb. nov.** var. **meliocarpoides.**
Syn.: *P. meliocarpoides* Boiss. in Ann. Sci. Nat. Bot. ser 3,2:81 (1844).

C. meliocarpoides var. **arcis-romanae** (Boiss. & Huet) Herrnst. & Heyn, **comb et stat. nov.**
Syn.: *P. arcis-romanae* Boiss. & Huet in Boiss., Diagn. ser. 2,2:105 (1856).

C. pabularia (Lindl.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. pabularia* Lindl. in Quart. Journ. Sci. 19:7 (1825).

C. peucedanifolia (Fenzl) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. peucedanifolia* Fenzl in Flora 16:463 (1843).

C. platychloena (Boiss. ex Tchih.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. platychloena* Boiss. ex Tchih., As. Min. Bot. 1:457 (1860).

C. tuberculata (Boiss. & Hausskn.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. tuberculata* Boiss. & Hausskn. in Boiss., Fl. Or. 2:943 (1872).

C. uechtritzii (Boiss. & Hausskn.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. uechtritzii* Boiss. & Hausskn. in Boiss., Fl. Or. 2:938 (1872).

C. uloptera (DC.) Herrnst. & Heyn, **comb. nov.**
Syn.: *P. uloptera* DC., Prodr. 4:239 (1830).

* The names adopted here are those used in a monographic study of *Cachrys* which will be published separately.