Taxonomical notes on Asiatic Rubus (Rosaceae) (6): Rubus X kajikumaichigo

鳴橋直弘：アジア産キイチゴ属の分類学的ノート（6）新雑種，カジクマイチゴ

Naohiro Naruhashi : Taxonomical notes on Asiatic *Rubus* (Rosaceae) (6) *Rubus* ×*kajikumaichigo* Naruh., hybr. nov.

1985 年の冬に岐阜県不破郡関ヶ原町関ヶ原インター近くの空き地で，クマイチゴ *Rubus crataegifolius* Bunge に似たキイチゴ属植物を見つけ，一株富山大学で栽培したところ，よく茂った。翌年よりその植物を観察した結果，クマイチゴの形質とともにその植物にカジイチゴ *R. trifidus* Thunb. の形質も観察された（Fig. 1）。そこで，この植物をカジイチゴとクマイチゴの自然雑種と推定した。

本雑種のカジイチゴとクマイチゴの中間的な形質は，茎の色，葉の切れ込み，托葉の形，葉の縁，花柄の長さ，苞の形，花の大きさ，花弁の形や開花時の状態などである。この雑種のカジイチゴとの類似形質は，茎，葉柄，葉裏主脈上，花柄に腺毛があること，初年茎の葉は 5 ～ 7 に深裂すること，花序が集散花序であることである。クマイチゴとの類似形質は，葉の裂片の先端が漸鋭先形であること，ガク片が三角状卵形で先端が尾形であること，またガク片が開花時外曲すること，果実が赤く熟すことである。

本雑種は，茎，葉柄，葉裏主脈上に小さな刺があること，苞が披針形であること，花弁やガク片が開花時にやや外曲すること，および果実が赤熟することでカジイチゴから区別される（Table 1）。また，花序が集散花序であること，茎，葉柄，葉裏主脈上，花柄に腺毛があること，および苞が披針形であることでクマイチゴから区別される（Table 1）。

和歌山県立自然博物館（WMNH）収蔵の山元　晃氏採集，1993 年 8 月 23 日の尾鷲市の標本はステライル標本ではあるが，この植物と思われた。2，3 の標本庫で，カジイチゴやクマイチゴのカバー中に，初年茎の葉が掌状に 5 深裂した植物標本があるが，カジイチゴの形質が見られず，これらはクマイチゴの初年茎の葉の良く切れ込んだ植物と思われる。

カジイチゴは 3 月中旬から咲き出し，クマイチゴは 4 月に入ると咲き出す，そこでそれらの花期はオーバーラップすることがある。栽培下の本雑種は果実がよく実り成熟する。これらの種子の発芽能力は未確認であるが，地下部の栄養繁殖によって個体数を増やす。

標本の閲覧を許可下さった和歌山県立自然博物館の内藤麻子氏と大阪市立自然史博物館の内貴章世氏，原稿を読んでコメントをいただいた杉本　守氏，及び英文の校閲をしていただいた Madjit Hakki 氏に心より感謝いたします。

Rubus* ×*kajikumaichigo Naruh., hybr. nov.（Fig. 1）

Rubus crataegifolius Bunge × *R. trifidus* Thunb.

Haec planta *Rubo crataegifolio* affinis est, a quo inflorescentiis cymis, caulibus, petiolis, principali-nervis foliorum subtus et pedunculis glandulosis, bracteis lanceolatis facile distinguitur. Etiam, haec hybrida *Rubo trifido* affinis est, a quo caulibus, petiolis et principali-nervis foliorum subtus sparsim breviter aculeatis, bracteis lanceolatis, petalis et calycibus subreflexis sub anthesi, fructibus rubris facile distinguitur.

Japanese name: Kaji-kuma-ichigo, nov.

Strongly erect shrubs, 1.5–2 m tall with subterranean rhizomes. Stems stout, yellowish green to pale brown, with sparsely scattered small prickles, pubescent and glandular hairy. Leaves simple, palmately cleft, orbicular to widely ovate, base cordate, 5–7-cleft on primocane, 3–5-cleft on floricane, margin serrate to doubly serrate, pubescent on vein on upper surface, pubescent and sparsely with small prickles on veins on lower surface. Terminal lobes elliptic, apex attenuate-acuminate. Petioles with sparsely small prickles, pubescent, glandular hairy, 3–10 cm long. Stipules ovate, ovate-lanceolate to lanceolate, pubescent and glandular hairy on margin, 7–12 mm long, 4–6 mm wide. Inflorescences terminal, cymes, (2-) 3–6 (-8) - flowered, pedicel pubescent and glandular hairy, 1–2 cm long. Flowers 2.5–3 cm across. Calyces pelviform. Sepals narrowly ovate, apex caudate, somewhat reflexed at flowering. Petals white, orbicular-obovate, somewhat reflexed at flowering, weakly undulate, glabrous, 10–13 mm long, 8–11 mm wide. Stamens and pistils numerous. Fruits globose, red. Pyrenes kidney-shaped ellipsoidal, reticulate.

Type: Cultivated plant at the garden of University of Toyama, Toyama-shi, Toyama Prefecture（plant from the place near Sekigahara-Inter, Sekigahara-cho, Fuwa-gun, Gifu Prefecture）, 31 May 2003, N.

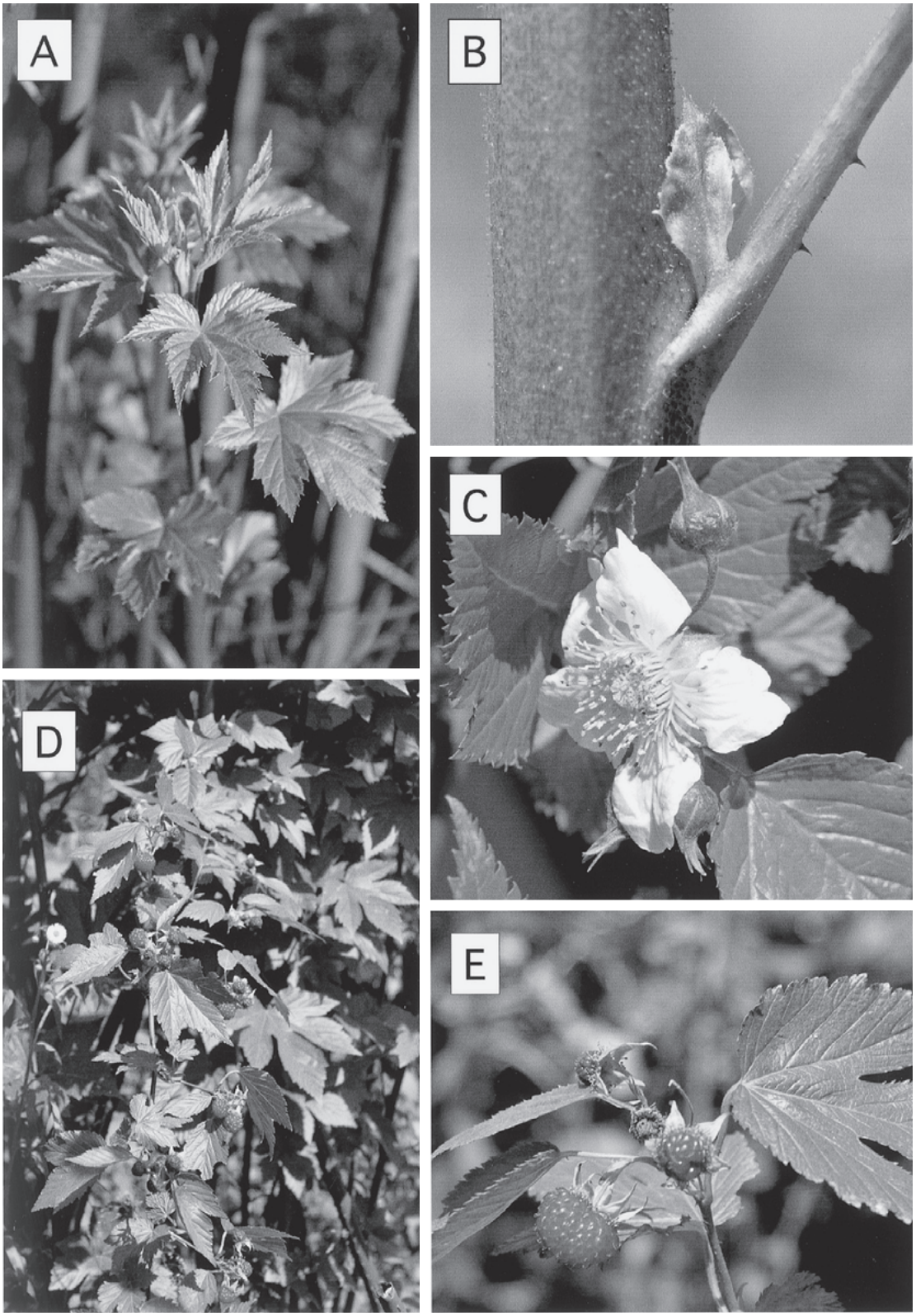

Fig. 1. *Rubus*×*kajikumaichigo* cultivated at the garden of University of Toyama, Toyama-shi. A, Primocane ; B, Stipule ; C, A flower ; D, Fruiting plant ; E, Aggregate fruits.

Table 1. Morphological comparison in *Rubus crataegifolius*, *R.* ×*kajikumaichigo* and *R. trifidus*

	R. crataegifolius	*R.* ×*kajikumaichigo*	*R. trifidus*
Stem, petiole and main vein on lower surface of leaf	prickly, not glandular hairy	sparsely small prickly, glandular hairy	not prickly, glandular hairy
Color of stem	brown to dark brown	yellowish green to pale brown	yellowish green
Incision of leaf	3–5-cleft	5–7-cleft	5–7-cleft
Apex of terminal lobe of leaf	attenuate-acuminate	attenuate-acuminate	acuminate
Margin of leaf	serrulate, rarely doubly serrate	serrate to doubly serrate	doubly serrate
Outline of stipule	lanceolate	ovate, ovate-lanceolate to lanceolate	ovate to narrowly elliptic
Inflorescence	raceme to umbel	cymes	cymes
Bract	linear	lanceolate	elliptic
Diameter of flower	1.5–2 cm	2–2.5 cm	2.5–3 cm
Outline and direction of calyx segment	narrowly ovate, reflexed	triangular-ovate, somewhat reflexed	ovate to narrowly ovate, horizontal
Apex of calyx segment	caudate	caudate	subcaudate
Outline and direction of petal	obovate, reflexed	orbicular-obovate, somewhat reflexed	orbicular, horizontal
Color of fruit	red	red	yellow to orange

Naruhashi no. 03053101 (holotype, OSA; isotypes, HYO, KYO, MAK, TI, TNS, TOYA)

Specimens studied. Japan. **Gifu Pref.** Near Sekigahara-Inter, Sekigahara-cho, Fuwa-gun, 29 December 1985, N. Naruhashi no. 85122901 (St.); cult. University of Toyama, Toyama-shi, 12 May 1986, N. Naruhashi no. 86051201 (Fr.); 12 April 1986, no. 86041202 (Fl.); 4 October 1986, no. 86100417 (St.); 27 April 1987, no. 87042701 (Fl.); 18 May 1987, no. 87051801 (PFl.); 5 June 1987, no. 87060503 (Fr.); 11 May 1988, no. 88051114 (Fl.); 25 May 1988, no. 88052504 (St.); 4 June 1988, no. 88060410 (Fr.): 29 April 1989, no. 89042901 (Fl.); 27 May 1989, no. 89052701 (Fr.); 27 May 1989, no. 89052702 (St.); 12 May 1990, no. 90051204 (St.); 25 April 1992, no. 92042501 (Fl.); 23 May 2002, no. 02052303 (Fr.); 7 December 2002, no. 02120701 (St.); 12 June 2003, no. 03061201 (St.); 17 May 2004, no. 04051701 (St.); 17 May 2004, no. 04051702 (Fr.); 19 April 2006, no. 06041902 (B); 28 April 2006, no. 06042805 (Fl.); 15 December 2006, no. 06121501 (St.). **Mie Pref.** Owase-shi, 23 August 1993, A. Yamamoto no. 15391 (St.) (WMNH). Main one set of specimens mentioned above is stored up in the Herbarium of Osaka Museum of Natural History (OSA), and the remaining specimens are going to be contributed to other herbaria. Fl., PFl., Fr., B., and St. each herbarium sheet having flowers, specimen after flowering, specimen having fruits, specimen having buds and sterile specimen of primocane.

Note: The present hybrid was discovered in Sekigahara-cho, Fuwa-gun, Gifu Prefecture in 1985 and has been cultivated at the botanical garden of University of Toyama. Morphological comparison of the hybrid with its presumable parents is shown in Table 1. The hybrid differs from *R. crataegifolius* by glandular hairs on stems, petioles, main veins of lower surface of leaves and pedicels and lanceolate bracts, and from *R. trifidus* by sparsely small prickles on stems, petioles and main veins of lower surface of leaves, and red aggregate fruits. Most of the flowers of the hybrid make normal fruits (Fig. 1E), but fertilities of those seeds were not examined. This hybrid does a vegetative propagation by an organ under the ground. The present new hybrid was named after Japanese vernacular name, Kajikumaichigo.

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(Received April 26, 2010 ; accepted May 27, 2010)