PAEONIA ROTUNDILOBA

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Paeonia rotundiloba((footnote:Hong, De-Yuan. *"Peonies of the World. Polymorphism and diversity."* Kew: Royal Botanic Gardens, 2011, p. 15.))

Shrubs up to 2.5 m tall, 3 cm in diameter at the base, glabrous throughout. Stems grey-black. Lower leaves mostly biternate-pinnate or ternate-pinnate, with 19-39 leaflets; leaflets not decurrent; terminal leaflets rhomboid to orbicular, 2.1-5.5 cm long, 1.5-4.8 cm wide, 3—partite to the base or 3-fid, terminal lobes 3—lobed. Flowers solitary, terminal, 10-15 cm broad. Involucrate bracts 2-5, mostly 2 or 3, unequal in size, linear-lanceolate or broad-elliptic, lobed or segmented. Sepals 3-5, green, broadly obovate or nearly orbicular, unequal in size, 1.5-3 cm long, 1.5-2.5 cm wide, all caudate at the apex. Petals obovate or oblong, incised at the apex, 3.5-6.5 cm long, 2-4.6 cm wide. Disk leathery, pale yellow, enveloping carpels nearly to the base of style at anthesis, 8-15 mm high, with triangular teeth. Carpels mostly 3, less often 2 or 4, very rarely 5; styles 1-1.3 mm long; stigma red. Follicles brown or grey—brown when mature, ellipsoid, 2.2-3.5 cm long, 1.2-1.6 cm in diameter. Seeds black, glossy, broadly ellipsoid or nearly globose, 8-10 mm long, 6-8 mm in diameter.

Chromosome number: 2n = 10 (Hong et al., 1988).

Paeonia rotundiloba occurred in well-developed thickets, young secondary forests or sparse Cupressus chengiana forests, often associated with Rosa multibracteata Hemsl. & E. H. Wilson, Cotoneaster soongaricus Popov, Ostryopsis davidiana Decne, Cotinus coggygria Scop., as well as species of Quercus L., Rhamnus L., Ribes L. and Spiraea L., etc. The subspecies was usually found on rocks at altitudes of 1,700—2,700 m. It is restricted to Minjiang Valley of northwestern Sichuan and Tewo County of SE Gansu, China, isolated from Paeonia decomposita by the Qionglai Range, which reaches over 4,000 m in altitude.

This species differs from P. decomposita in having much wider leaflets that are ovate-orbicular, lobes also wider, with terminal ones acute at the apex, and carpels mostly three to four, less frequently two or five in number.

It is worth noting here that Hong's second book "Polymorphism and diversity" lists P. rotundiloba as a species, whereas in his first "Taxonomy and Phytogeography" it was listed as a subspecies of P. decomposita. This is because he raised the former Paeonia decomposita Hand.-Mazz. subsp. rotundiloba D. Y. Hong to specific status under the name Paeonia rotundiloba (D. Y. Hong) D. Y. Hong. The new species is distinguished from P. decomposita in having carpels mostly 3, less frequently 4 or 2, very occasionally 5 (rather than nearly always 5) and disk 8—15 mm high (rather than 4-9.6 mm high). In addition, there are differences in the number of leaf segments and in the shape of the terminal leaf segment. He regrets that he did not pay enough attention to the former two characters when he prepared the first book.

Images below:
P. rotundiloba along the Minjiang River in Sichuan, China. The distribution of this species is very narrow, and it is an extremely endangered species.
All images by Yong Yang, in the Facebook group 'Paeonia species (only species)'.

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