

## *Eranthis pungdoensis* B.U. Oh: A new species of *Eranthis* (Ranunculaceae) from Korea

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### 풍도바람꽃: 한국에서 발견된 너도바람꽃속의 1신종

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**ABSTRACT:** A new species of *Eranthis* (Ranunculaceae), *E. pungdoensis* B.U. Oh is described from Pung-do, Ansan-si, Gyeonggi-do in Korea. The new species is distinct from *E. byunsanensis*, its closely relative species, in having broad funnellform petals, 2.5-3.7 mm long, 2.4-3.5 mm wide and restricted distributional area.

**Keywords:** Ranunculaceae, *Eranthis*, new species, *Eranthis pungdoensis*

**적 요:** 미나리아재비과 너도바람꽃속의 1신종인 풍도바람꽃이 한국의 경기도 안산시 풍도에서 발견되어 기재되었다. 신종은 화판이 넓은 누두형이고, 길이 2.5-3.7 mm, 너비 2.4-3.5 mm이며, 제한된 분포역을 가짐으로써, 이와 유사한 변산바람꽃과 뚜렷이 구별되었다.

**주요어:** 미나리아재비과, 너도바람꽃속, 신종, 풍도바람꽃

The genus *Eranthis* Salisb. belongs to the tribe Helleboreae under family Ranunculaceae (Tamura, 1990), and is distinguished from other genera by having tuberous rhizomes, palmately divided simple leaves, verticillate involucre, actinomorphic and solitary flowers (Tamura, 1990; Wang *et al.*, 2001). About 8 species of this genus are widely distributed in temperate regions of Eurasia (Li, 1995; Wang *et al.*, 2001; Yuan. and Yang, 2006).

Korean species of the genus *Eranthis* were recently revised into *E. stellata* Maxim. which is known to distribute in Korea, China and Russia (Wang *et al.*, 2001; Park *et al.*, 2007), and *E. byunsanensis* B. Sun, an endemic species, in the central and southern parts of Korea (Sun, 1993; Park *et al.*, 2007).

In this study, one another *Eranthis* species collected from Pung-do, Ansan-si, Gyeonggi-do, Korea is described as a new species, *E. pungdoensis* B.U.Oh.

*Eranthis pungdoensis* B.U.Oh, *sp. nov.*, Fig. 1, 2, 3.

Haec species *E. byunsanensis* B. Sun affinis, sed petala late infundibuliformis, 2.5-3.7 mm longa, 2.4-3.5 mm lata diversus.

**Holotype:** open fields and forests in mountainous area, Pung-do, Ansan-si, Gyeonggi-do, Korea. alt. 15-150 m, 37°06'40"N, 126°23'22"E, 16 Mar. 2007, *B.U.Oh 2007001* (CBU)

**Isotypes:** CBU

**Paratypes:** Pung-do, Ansan-si, Gyeonggi-do, 24 Mar. 1996, *B.U.Oh 960324-001* to *960324-007*; Pung-do, Ansan-si, Gyeonggi-do, 20 Mar. 2005, *B.U.Oh 050320-001* to *050320-005* (CBU)

Herbs, perennial. Roots fibrous, developed from any surface of rhizome. Rhizome globose, 1-2 cm in diam. Leaves radical, 1-4, arising from rhizome, orbicular to weakly pentagonal, deeply 3-parted, 2.2-3.8 cm wide at flower; petiole glabrous, 8.3-27.2 cm long. Inflorescence terminal, with solitary flower; scape 1 or rarely 2, glabrous, 11.2-29.7 cm long at flower; involucre 2, sessile, deeply 3-parted, 2.2-5.4 cm wide; pedicel pubescent, 1.1-1.9 cm long. Flower bisexual, actinomorphic; sepals 5-10, white or rarely greenish white, oval, ovate or obovate, 1.0-1.9 cm long, 0.9-2.0 cm wide; petals 4-11, broadly funnellform, V-shaped, pale yellow at middle and lower part, light to dark green at upper margin, emarginate apically, 2.5-3.7 mm long,

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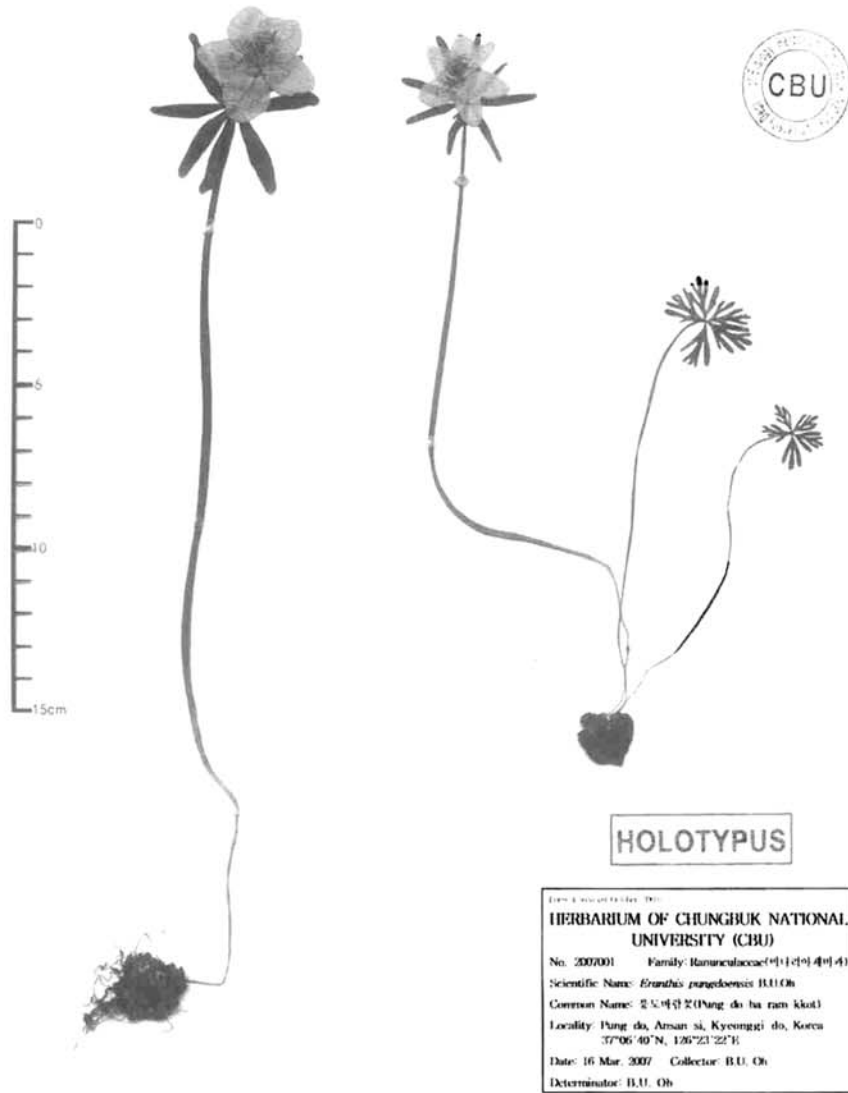


Fig. 1. Holotype of *Eranthis pungdoensis* B.U. Oh, B.U. Oh 2007001 (CBU).



Fig. 2. Photograph of Flowers on *Eranthis pungdoensis* at type locality.

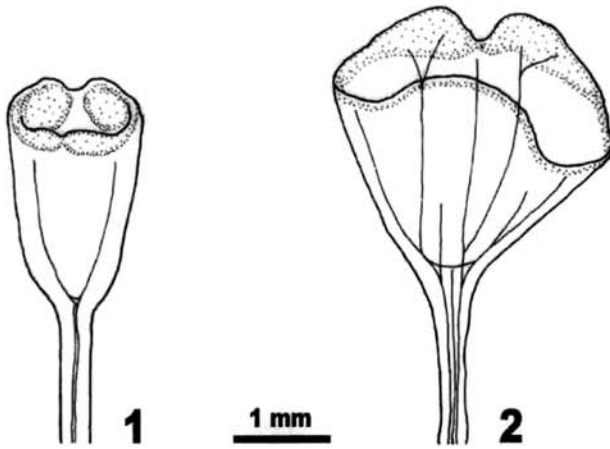


Fig. 3. Shapes of petal of *E. byunsanensis* (1) and *E. pungdoensis* (2).

Table 1. Comparison of major characters between *E. pungdoensis* and *E. byunsanensis*

Characters		<i>E. pungdoensis</i>	<i>E. byunsanensis</i>
Leaf	diameter (cm)	2.2 (2.5) 2.8	0.6 (1.5) 2.6
	length (cm)	8.3 (14.3) 27.2	6.2 (11.6) 18.4
Scape	length (cm)	11.2 (21.2) 29.7	6.5 (16.7) 24.8
Bract	diameter	2.2 (3.4) 5.4	0.8 (2.1) 3.4
Pedicel	surface	pubescent	pubescent
	length (cm)	1.1 (1.5) 1.9	0.8 (1.2) 1.5
Sepal	shape	variable; oval, ovate, obovate	ovate to elliptic
	number	5 (6.7) 10	5 (5.3) 7
	length (cm)	1.0 (1.5) 1.9	0.6 (1.4) 2.0
	width (cm)	0.9 (1.4) 2.0	0.4 (0.8) 1.0
Petal	shape	broadly funnelliform, V-shaped	narrowly funnelliform, U-shaped
	length (mm)	2.5 (3.0) 3.7	1.1 (2.2) 2.5
	width (mm)	2.4 (2.8) 3.5	1.1 (1.5) 2.0

Min. (Mean) Max.

2.4-3.5 mm wide; stamens 19-46; filaments white, filiform, 0.7-1.0 cm long; anthers basifixed, light purple, elliptic, 1.1-1.4 mm long; pistils 3-10, 0.7-1.0 cm long; style 1 per pistil; stigma capitate. Fruits follicle, usually 5, glabrous, 1.1-1.4 cm long. Seeds 3-5, subglobose, ca. 2.7 mm in diam.

**Korean name:** Pung-do-ba-ram-kkot

*E. pungdoensis* is distinguished from *E. byunsanensis*, its closely relative species, by its shapes and size of petals (Table 1.). This species only can be observed in Is. Pung-do, which is located in adjoining western sea of the central part of Korean peninsula. Habitat of new species is open fields and lower part of the broad leaved forests in the mountainous area. Also it is often accompanied by other early flowering species such as *Hepatica asiatica* Nakai, *Adonis amurensis* Regel & Radde and *Euphorbia ebracteolata* Hayata, etc.

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