NEW SPECIES OF PELIOSANTHES (ASPARAGACEAE) FROM VIETNAM

Summary. A new species, *Peliosanthes micrantha* (Asparagaceae, incl. Convallariaceae s. str.) is described and illustrated. Description of this local endemic is accompanied with a standard citation of type specimen, morphological diagnosis, etymology of specific epithet, data on ecology and distribution, and a short taxonomic remark.

Key words: *Peliosanthes micrantha*, new species, local endemism, Asparagaceae, Vietnam, plant diversity.

**INTRODUCTION**

Recent investigations of the genus *Peliosanthes* Andrews in Indochina by Tanaka (1999, 2004), Shaw (2009), and Averyanov and Tanaka (2012) resulted in the discovery of 8 new species, six of which are new to the flora of Vietnam (cf. Ho, 2000; Nguyen, 2005). It is becoming evident from these studies that *Peliosanthes* is greatly diversified in eastern Indochina, and we can still expect some more undescribed species to be found in that region if more thorough field investigations are made in the future. Recently we found an unusual *Peliosanthes* in southern Vietnam, and confirmed it as a new species. We named it *P. micrantha*, and this new species is described here with a standard citation of type specimen, etymology of the specific epithet, data on the ecology and distribution, and a short taxonomic remark.

*Peliosanthes micrantha* Aver. et N. Tanaka, **sp. nov.**

Described from southern Vietnam without a precise locality. **Type:** “Southern Vietnam”. Type specimen was pressed from cultivated plants grown from an immature specimen imported from southern Vietnam. The collector’s name, collection number and exact locality unknown. Type prepared at 24 April 2012 by L.V. Averyanov – LE (holotype).

Terrestrial perennial herb with short, plagiotropic, branching rhizome (2)3–5(10) cm long, (0.6)0.8–1(1.4) cm in diam., with many rigid, thick, semi-woody roots. Stems 3–5(10) on common rhizome, densely clustering, erect, very short, abbreviate, to l(1.5) cm tall, covered with many loose, broadly lanceolate, acute, thin, light yellowish, papyraceous imbricate scales, scarious along margin, later becoming almost...
membranaceous or hyaline. Leaves erect to curved, petiolate; petiole rigid, straight or arching, (2)3–12(14) cm long; leaf blade elliptic to broadly lanceolate, (8)10–15(18) cm long, (1.5)2–4(5) cm wide, glabrous, more or less coriaceous, glossy, brightly dark green adaxially, light green abaxially, obtuse to acute, often irregularly finely undulate along margin; prominent longitudinal veins (7)10–15(22); secondary transverse veinlets more or less distinct, running at some angle near margin or almost perpendicular in median part of leaf blade to longitudinal veins. Inflorescence hysteranthous, sub-dense raceme with many flowers, (4)5–8(10) cm long; peduncle erect, light green to green with violet tint, rigid, straight, (1)2–5(6) cm long, 1–2 mm in diam.; sterile bracts on peduncle (4)5–9(11), herbaceous, narrowly triangular to cuneate, acute to attenuate, greenish to light lilac, (6)8–12(14) mm long, (2)3–4(5) mm wide at the base; rachis straight or slightly flexuose, rigid, very light green to pure white, (3)4–6(8) cm long, bearing numerous flowers. Floral bracts 2 at base of each pedicel, light green to white, or light dirty violet, yellowish flowers. Floral bracts 2 at base of each pedicel, light green to white, or light dirty violet, yellowish papyraceous when dry, triangular, concave, light green to white, or light dirty violet, yellowish, smaller. Pedicels light green to white, sometimes with light violet tint, straight to slightly incurved, perpendicular or sub-perpendicular to the rachis, terete, (2.5)3–4(5) mm long, 0.6–0.8 mm in diam., distinctly articulate at apex. Flowers odorless, solitary, at base articulated with pedicel, shorter than flowers, down descending at anthesis, sometimes with strongly revolute margin at base; inner ones much smaller. Pedicels light green to white, sometimes with light violet tint, straight to slightly arching, perpendicular or sub-perpendicular to the rachis, terete, (2.5)3–4(5) mm long, 0.6–0.8 mm in diam., distinctly articulate at apex. Flowers odorless, solitary, at base articulated with pedicel, not widely opening, campanulate, (3.5)4–5(6) mm across. Perianth segments light dirty violet to light brownish-green, subsimilar, concave, incurved, narrowly ovate to ovate, 2–3 mm long, 1–1.5 mm wide, with thin membranaceous margin toward obtuse, irregularly denticulate or retuse apex; outside shortly glandular-papillose to finely verruculose. Corona of same coloration as perianth segments, spherical, (1.8)2(2.2) mm across; apical opening circular, 1.5–1.7 mm in diam. Anthers 6, introrse, globular to obovate, about 0.5–0.7 mm long, sessile. Ovary superior, ovoid-pyramidal, 1–1.5 mm tall, 0.8–1.2 mm wide at the base, with apex attenuate into erect style, unilocular, separated basally into 3 chambers by 3 longitudinal parietal folds touching each other at the center, each chamber adaxially open, containing usually 1 ovule (rarely 2 ovules) on basal placentaion; stigma unlobed, round, glabrous 0.6–0.7 mm across. Seeds ovoid, (3)4(5.5) mm in diam., glossy blue. Fig. 1.

Etymology. The specific epithet reflects the small size of flowers of the described species that looks to be the smallest among all its congeners.

Ecology. Any documented ecological data on the species are not yet available. The described plant most probably inhabits lowland and submontane evergreen broad-leaved forests developed on soils derived from silicate rock at elevation 400–800 m a.s.l. Flowers in cultivation in April – May; fruits in July – August. Probably very rare and critically endangered.


Notes. We see no species in the genus that may have a close relation to our new species. Very small flowers, glandular-verruculose perianth segments, spherical corona, distinctly superior bottle-shaped ovary with chambers usually containing 1 ovule are characteristic features of this described species and look unique in the genus.

Acknowledgements. Field works, results of which are presented in this publication, were supported by investigation program of U.S.A. National Geographic Society # 9129-12 (“Exploration of primary woods along constructed highway Hanoi – Ho Chi Minh for their sustainable conservation (in limits of Ha Tinh and Nghe An provinces of central Vietnam”).

LITERATURE


Fig. 1. *Peliosanthes micrantha* Aver. et N. Tanaka. Digital herbarium specimen: d-EXSICCATES OF VIETNAMESE FLORA 0194/Averyanov s.n., a. 2012 (all photos and design by L.V. Averyanov).