

菌寄生性ラン科植物キバナウスキムヨウランの新産地

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Kenji Suetsugu: New record of the mycoheterotrophic orchid *Lecanorchis kiusiana* forma *lutea* outside the type locality.

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The genus *Lecanorchis* Blume (Orchidaceae) comprises a group of mycoheterotrophic plants with tuberous roots that grow in multiple clusters and an erect stem which may be either branched or unbranched (Hashimoto 1990; Sawa 2006; Seidenfaden 1978; Szlachetko and Mytnik 2000). A characteristic feature of *Lecanorchis* is the presence of a calyculus, a cup-like structure between the base of the perianth and the apex of the ovary (Hashimoto 1990; Sawa 2006). There are about thirty species and/or varieties in the genus *Lecanorchis* extending across a large area between Southeast Asia, Taiwan, New Guinea and Japan (Hashimoto 1990; Seidenfaden 1978; Szlachetko and Mytnik 2000). Most of us consider the color green to be one of the main characteristics of the plant kingdom; likewise, plants are generally considered to be autotrophic in that they derive their nutrients from inorganic sources (sunlight). However, mycoheterotrophs are found in a diverse range of pigmentation in their vegetative parts as well as in the flower (Leake 1994; Suetsugu 2011). The distinct color variation (i.e. bright yellow coloration in both floral and vegetative parts) has also been noted in the genus *Lecanorchis* (Serizawa 2005; Fukunaga et al. 2008), and the diversity of the coloration suggested that selective pressure for pigments would be relaxed in *Lecanorchis* species.

Recently, I found some *Lecanorchis* plants that have both stems and flowers of bright yellow in Mt. Kamikura, Shingu, Wakayama Prefecture, Japan (Figs. 1 A, C, E). This same pattern of coloration has been seen in *L. japonica* Blume var. *kiensis* (Murata) T.Hashim., *L.*

suginoana (Tuyama) Seriz. f. *flava* Seriz. and *L. kiusiana* f. *lutea* Sawa, H. Fukunaga & S. Sawa. The plants I found had many similarities to *L. suginoana* f. *flava* and *L. kiusiana* f. *lutea* in following characters; plants rather small, lips with marginal papilla and more conspicuous branchlets of disc-hairs, ovaries with an apparent ring-like excrescence, the calyculus, attached below, fruits rather short. *L. suginoana* was considered an intra-species taxon of *L. kiusiana* because these characters are shared in *L. suginoana* and *L. kiusiana* (Hashimoto 1990). The two species are, however, distinguishable by the coloration of the fresh lip (Hashimoto 1990) and their column morphology (Serizawa 2005). Although the yellow fresh lip coloring cannot be differentiated from those of *L. kiusiana* f. *lutea* and *L. suginoana* f. *flava*, the apex of the column in my material was tri-lobed and acute, which was identical to the normal forma of *L. kiusiana* (Fig 1A-F), not to *L. suginoana* with truncate apex of the column.

I thus conclude that my material is *L. kiusiana* f. *lutea*. *Lecanorchis kiusiana* f. *lutea* was described based on the specimens of Nunoshida, Kochi City, Kochi prefecture collected by Yutaka Sawa in 1987. However, after two flowering individuals were detected in 1999, there are no plants discovered even in the type locality (Dr. Shinichiro Sawa, personal communication). This is the first record of *L. kiusiana* f. *lutea* outside the type locality. I preserved a voucher specimen in KYO.

Lecanorchis kiusiana f. *lutea* Sawa, H. Fukunaga & S. Sawa in The Orchid Review 116: 106 (2008).

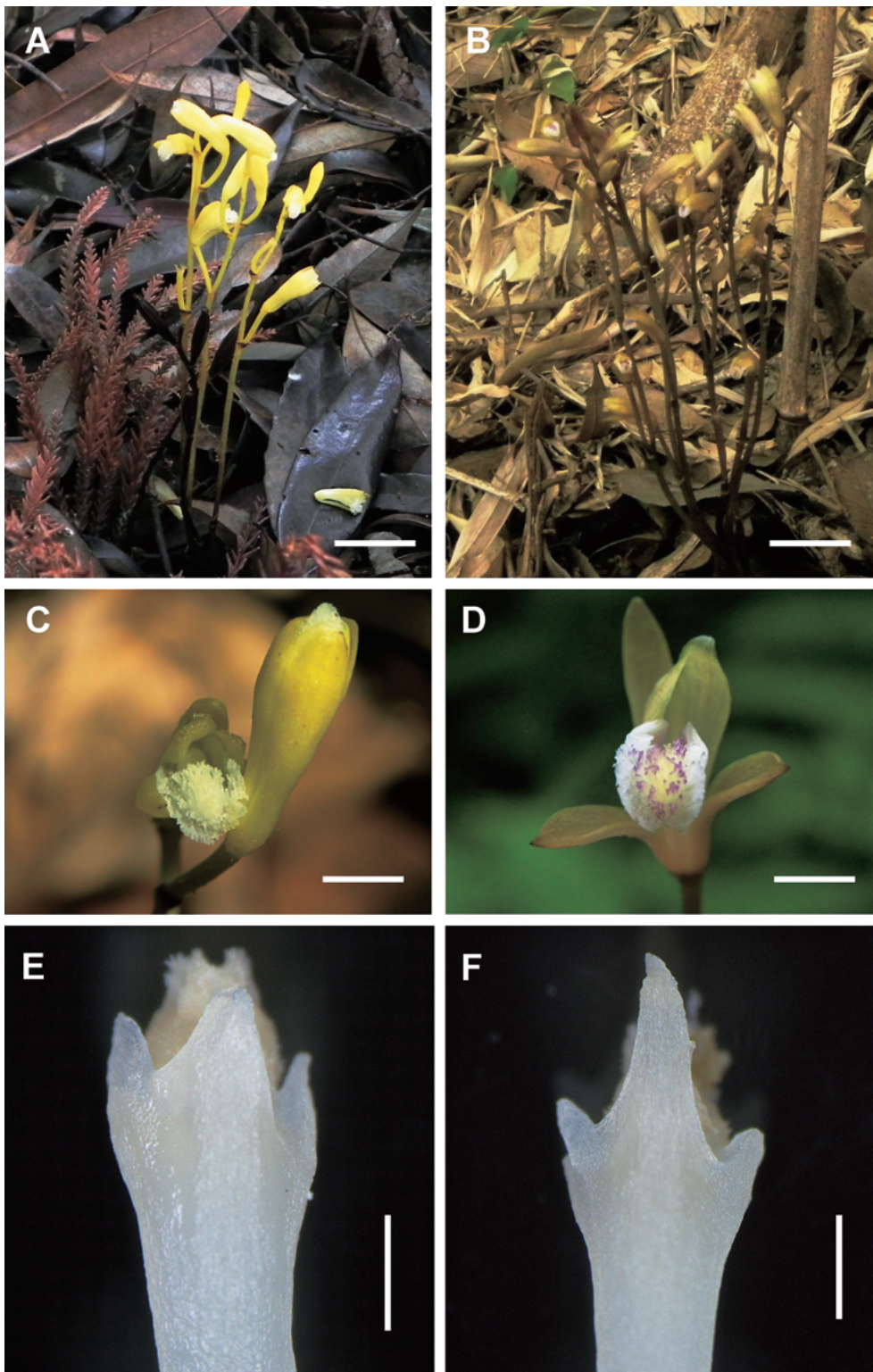


Fig. 1. (A) A flowering plant of *Lecanorchis kiusiana* f. *lutea*; bar: 2cm (B) A flowering plant of *Lecanorchis kiusiana*; bar: 2cm (C) Flower of *Lecanorchis kiusiana* f. *lutea*; bar: 5mm (D) Flower of *Lecanorchis kiusiana*; bar: 5mm (E) Column of *Lecanorchis kiusiana* f. *lutea*; bar: 1mm (F) Column of *Lecanorchis kiusiana*; bar: 1mm

Specimen examined : Growing on floor of a deciduous forest of *Castanopsis sieboldii*. Mt. Kamikura, Shingu City, Wakayama Prefecture, Honshu, Japan (M. Okuda s.n., July 5, 2011, preserved in KYO)

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末次健司：菌寄生性ラン科植物キバナウスキムヨウランの新産地

和歌山県新宮市で、開花時の茎や花が鮮黄色で、褐色を帯びないムヨウラン属植物を発見した。このような紫色や褐色系の色素を欠くムヨウラン属植物としては、キイムヨウラン、キバナエンシュウムヨウラン、キバナウスキムヨウランが知られている。形態的な特徴を精査した結果今回発見された個体は、キバナウスキムヨウランであることが確認された。キバナウスキムヨウランは、高知県高知市で1987年に発見された標本をもとに福永らにより2008年に記載されたものの、その後1999年に2株発見されて以降タイプ産地でも発見されておらず、今回発見された産地が、現在確認されている現存する産地としては唯一のものである。(京都大学大学院人間・環境学研究科 相関環境学専攻自然環境動態論講座 〒606-8501 京都市左京区吉田二本松町)