Phytotaxa 226 (2): 196–198
www.mapress.com/phytotaxa/

Correspondence

ISSN 1179-3155 (print edition)
PHYTOTAXA
ISSN 1179-3163 (online edition)

http://dx.doi.org/10.11646/phytotaxa.226.2.10

Continuous variation supports accommodating *Lilium habaense* and *L. xanthellum* within *L. stewartianum* (Liliaceae)

YUN-DONG GAO
Key Laboratory of Mountain Ecological Restoration and Bioresource Utilization & Ecological Restoration Biodiversity Conservation Key Laboratory of Sichuan Province, Chengdu Institute of Biology, Chinese Academy of Sciences; email: gaoyd@cib.ac.cn

Continuous variation among *Lilium stewartianum* I.B.Balfour & W.W.Smith (1922: 127) and its close allies, *L. habaense* (1986: 51) and *L. xanthellum* F.T.Wang et Tang (1980: 283) have been observed by the author. In particular, *L. habaense* is distinguished from *L. stewartianum* on the basis of stamen having slightly shorter filaments (Wang *et al.* 1986). *Lilium xanthellum* is distinguished from the other two species by means of papillose nectaries that form two ridges along the bases of the inner tepals (Fig. 1) (Liang 1980). I have observed in the field that the variations in anthers length and nectary morphology are extensive, largely continuous, and dependent upon the phase of flowering. Therefore, on the basis of continuous variation I propose to accommodate *L. habaense* and *L. xanthellum* within *L. stewartianum*.

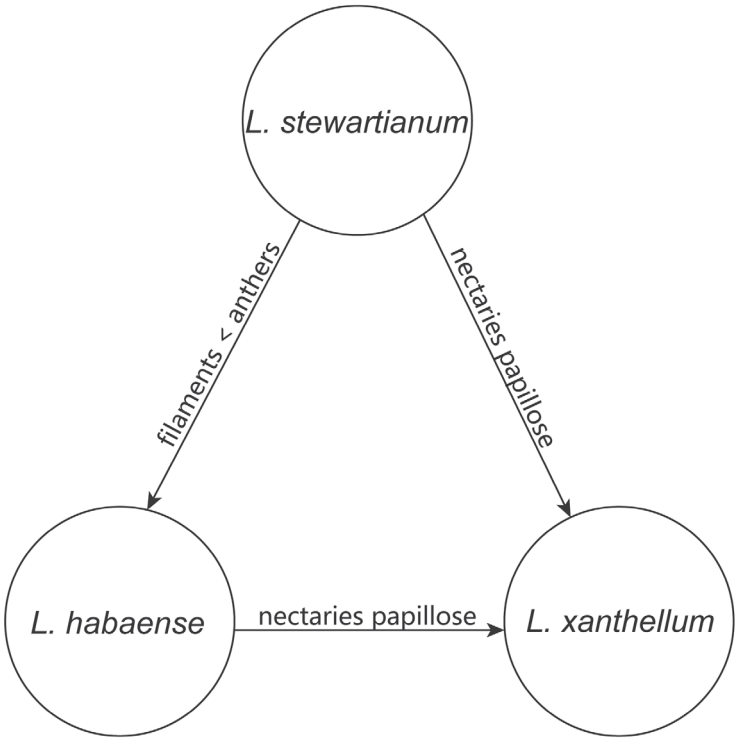

FIGURE 1. An illustration of features traditionally used to delimit *Lilium habaense*, *L. stewartianum*, and *L. xanthellum*.

In *Lililum habaense*, the filaments increase in length as the flowers mature (Fig. 2A). Thus, the filaments are significantly shorter than anthers in specimens collected or field observations during the early stages of flowering. Therefore, I propose that *L. habaense* represents the early flowering stage of *L. stewartianum*, with which it is conspecific.

The nectary features that delimit *Lililum xanthellum* F.T.Wang & Tang (1980: 283) are present in the type specimen of the species as well as in the types of *L. stewartianum* and *L. habaense*. In fact, the feature was illustrated in the protologue of *L. habaense* (Fig. 1 in Wang *et al.* 1986). The prominence of the nectary ridges increases with floral maturity. Therefore, I suspect the small extent of the ridges in early floral stages may have led to confusion about the presence or absence of the feature in individual specimens (Fig. 2B, C).

 Accepted by Jeffery Saarela: 30 Jun. 2015; published: 11 Sept. 2015