

# NOTES ON SOME RECENTLY SYNONYMIZED *FERNANDEZIA* (ORCHIDACEAE: ONCIDIINAE) TAXA

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**Abstract.** Discussion is provided on the recent reduction to synonymy of seven Bolivian and Peruvian taxa of the genus *Fernandezia*.

**Keywords:** *Fernandezia*, synonymy, Bolivia, Peru

*Fernandezia* Ruiz & Pav. (Orchidaceae) is a genus of 88 species distributed from Mexico to Bolivia. They are mostly inhabitants of montane (2000–3500 m) forests and can be found growing epiphytically or lithophytically. The plants have a monopodial growth habit, producing axillary inflorescences of few to many, usually small, most often whitish flowers. Only a few taxa have attractive red to orange flowers (e.g. *F. subbiflora* Ruiz & Pav.). Studies based on a large amount of herbarium material by Ormerod (2016) clarified the status and synonymy of two of the red flowered species *F. myrtillos* (Rchb.f.) Garay & Dunsterv. and *F. sanguinea* (Lindl.) Garay & Dunsterv. Further studies of nearly the whole genus by Ormerod (2018) led to the proposal of 45 species, 11 varieties, 3 sections, and 7 new synonyms. Recently Damian, Mitideri and Edquen (2021) proposed that seven taxa described by Ormerod (2018) were all taxonomic synonyms after evaluating these entities based on an examination of fresh material, dried material in CUZ, MO, MOL, UFV, and USM, as well as images of material in AMES, BRIT, F, K, and SEL.

It is the opinion of this author that Damian et al. (2021) overlooked fundamental characters in making their proposals. My dissenting views are given below for each taxon.

*Fernandezia breviconnata* (Schltr.) M.W. Chase, Phytotaxa 20: 29. 2011.

Basionym: *Pachyphyllum breviconnatum* Schltr., Rep. Sp. Nov. Regni Veg., Beih. 9: 115. 1921. Fig. 1A.

TYPE: PERU. Cusco: Prov. Paucartambo, below Tres Cruces, 3600–3700 m, May 1914, A. Weberbauer 6976 (Holotype: B, destroyed; Lectotype (designated by Christenson 2008: 285): US, image seen; Isolectotypes: AMES, GH; F, 2 sheets, images seen; MOL, not seen).

**Distribution:** Peru.

Damian et al. (2021) reduced to the synonymy of this species *F. chaparensis* and the quite dissimilar *F. luerorum*. Study of the type material of *Pachyphyllum breviconnatum* in AMES and GH gave the following characteristics: lateral sepals 7.5 mm long, labellum 7 mm long (claw 3.5 mm long, the ovate-lanceolate blade 3.5 mm long, 2 mm wide), calli distinctly separate, erect, at base of blade, column 3.5 mm long, 1.8 mm wide laterally.

*Fernandezia chaparensis* Ormerod from Bolivia (C. Luer, J. Luer, R. Vasquez, T. Mulder, D. Mulder & A. Vogel 128884 [Holotype: K; Fig. 1B]) also has 7.5 mm long lateral sepals, the labellum is 7 mm long, but the claw is only 2.2 mm long, the narrowly oblong blade 4.8 mm long by 1.8 mm wide, its laminate calli are distinctly spreading and joined by a bicallose process, the calli are placed just below the middle of the blade, the column is 3.8 mm long, 2 mm wide laterally. The different proportions of the labellum and the placement and angle of the calli on it indicate that *F. chaparensis* is a species distinct from *F. breviconnata*.

*Fernandezia luerorum* Ormerod from Bolivia (C. Luer, J. Luer, E. Besse & R. Vasquez 5616 [Holotype: SEL]) has 7 mm long sepals in which the inner surfaces face upward (vs. inner surfaces parallel in *F. breviconnata* and *F. chaparensis*), the labellum is 6.2 mm long with the claw 3.3 mm long, and the elliptic blade 2.8 mm long by 1.6 mm wide, its fleshy (not laminate) calli form an inverted V-shaped, the column is 2.5 mm long but 3 mm wide laterally (i.e. broader than long). The different proportions of the labellum, form and fleshiness of the calli, and dolabriform column (unique in the genus) clearly show that *F. luerorum* should not be included in *F. breviconnata* or any other taxon for that matter.

*Fernandezia gracillima* (C. Schweinf.) M.W. Chase, Phytotaxa 20: 30. 2011.

Basionym: *Pachyphyllum gracillimum* C. Schweinf., Amer. Orch. Soc. Bull. 16, No. 10: 564. 1947. Fig. 1C.

TYPE: PERU. Cusco: Prov. Urubamba, Puyupata to Tuncapata, 3200 m, 6 August 1942, C. Vargas C. 2932 (Holotype: AMES).

Homotypic synonym: *Orchidotypus gracillimus* (C. Schweinf.) Senghas, in Schltr., Die Orchideen ed. 3, I/B, 31: 1923. 1995.

**Distribution:** Peru.

Damian et al. (2021) reduced to this taxon *F. unduaviae* Ormerod from Bolivia. There is no doubt the two are closely related but examination of the holotype of *Pachyphyllum gracillimum* shows that the lip has a unique shape and dissimilar measurements. The labellum is about 1.6 mm long, with the claw about 0.5–0.6 mm long, the suborbicular blade about 1 mm long and 1 mm wide, and its calli slightly divergent.

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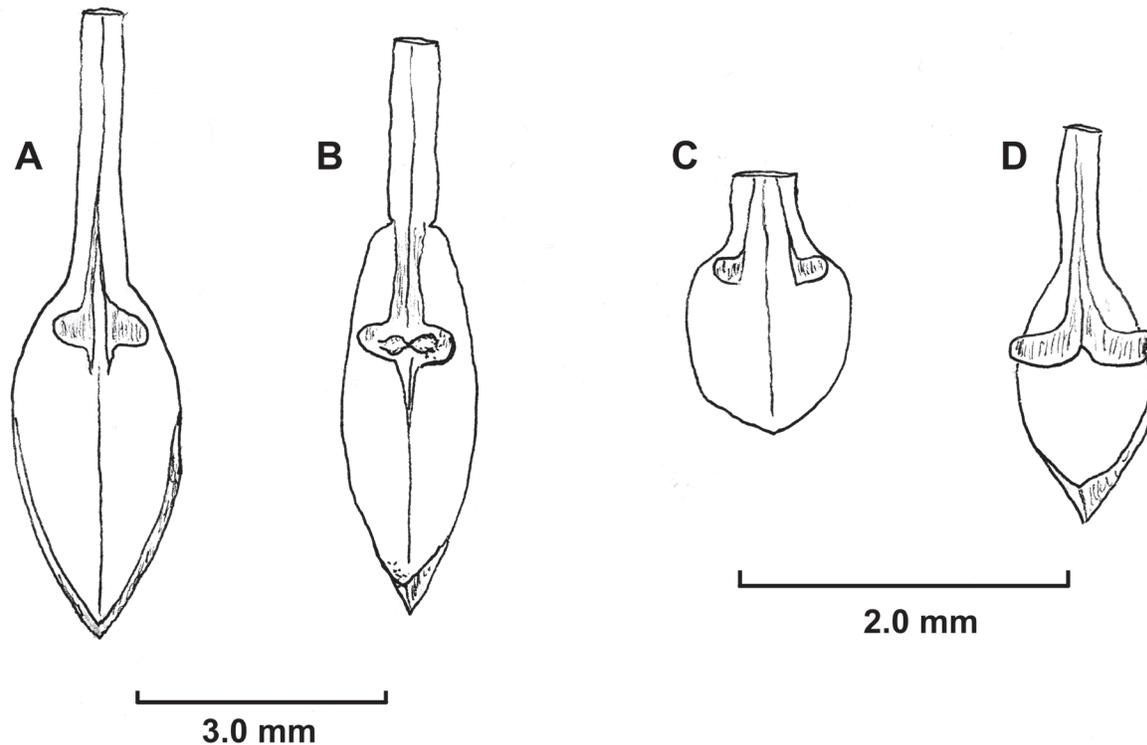


FIGURE 1. Labellum of *Fernandezia* species. **A**, *Fernandezia breviconnata* (Schltr.) M.W. Chase; **B**, *Fernandezia chaparensis* Ormerod; **C**, *Fernandezia gracillima* (C. Schweinf.) M.W. Chase; **D**, *Fernandezia unduaviae* Ormerod. A from isoelectotype AMES, B–D from holotypes.

In the Bolivian *F. unduaviae* (J.C. Solomon 8664 [Holotype: MO; Fig. 1D]) the labellum is about 2.1–2.4 mm long, the claw is 0.80–1.15 mm long, the oblong to elliptic blade is 1.30–1.35 mm long, 0.8–0.9 mm wide, and its calli parallel. It is my view that the Peruvian material studied by Damian et al. (2021) represents *F. unduaviae*. It is also possible that the simultaneously published *F. nunezii* Ormerod from Peru and *F. unduaviae* are taxonomic synonyms.

*Fernandezia parvifolia* (Lindl.) M.W. Chase, Phytotaxa 20: 30. 2011 as *parviflora*.

Basionym: *Pachyphyllum parviflorum* Lindl., in W.J. Hook., Icon. Plant. 2: t.177. 1837.

TYPE: PERU. Amazonas: Prov. Chachapoyas, without locality, A. Mathews 1836 (Holotype: K).

**Distribution:** Peru.

Damian et al. (2021) reduced to this taxon *F. parvifolia* var. *cajamarcae* Ormerod, and strangely *F. nunezii* Ormerod and *F. pastinaca* Ormerod. Reduction of the variety seems to be based on a dislike of varieties as the authors themselves intimated in their discussion.

*Fernandezia parvifolia* is unique in section *Breviconnatae* Ormerod in having oblong to oblong-obovate leaves, whilst all other members have elliptic leaves that are tapered at each end (i.e., lenticular in outline). This was already

noted in Ormerod (2018: 218) under the establishment of *Fernandezia* section *Breviconnatae*. The sepals are 3–4 mm long, the narrowly oblong to ligulate-oblancoate petals free from the dorsal sepal, and the column is widest in the upper half.

*Fernandezia nunezii* Ormerod from Peru (*P. Nunez* 7805 [Holotype: MO; Isotype: NY]) has leaves lenticular in outline, sepals 2.5–3.0 mm long, the narrowly oblong-rhombic petals joined basally to the dorsal sepal, with the column widest in the basal half. As noted above this taxon and *F. unduaviae* are very similar and may be united at some stage.

*Fernandezia pastinaca* Ormerod from Bolivia (*F. Calzadilla, I. Vargas, C. Jordan & D. Rocabado* 56 [Holotype: MO]) has leaves lenticular in outline, sepals 2.8–3.3 mm long, clawed petals with an elliptic blade that are free from the dorsal sepal, the column is strongly narrowed in the basal half and widest at the middle.

*Fernandezia tenuis* (Schltr.) M.W. Chase, Phytotaxa 20: 31. 2011.

Basionym: *Pachyphyllum tenue* Schltr., Rep. Sp. Nov. Regni Veg. 9: 116. 1921.

TYPE: PERU. Junin: Chanchamayo Valley, *E. Koehler s.n.* (Holotype: B, destroyed; Lectotype (Christenson 2008: 288): t.131, nr. 512 (in Schltr. 1929)).

Homotypic synonym: *Orchidotypus tenuis* (Schltr.) Senghas, in Schltr., *Die Orchideen* ed. 3, 1/B, 31: 1923. 1995.

**Distribution:** Peru.

Damian et al. (2021) reduced *F. vanderwerffii* Ormerod to this taxon. However the two taxa differ substantially in their leaves, with those of *F. tenuis* being fleshy (*carnosulis* in Schlechter 1921; illustrated Damian et al. 2021: Fig. 1D, H) with upcurved sides whilst those of *F. vanderwerffii*

are thin and flat. The smaller labellum calli of the latter were dismissed as unimportant feature by Damian et al. (2021) who did not observe any intermediates in this character. However, the combination of characters of *F. tenuis* (fleshy leaves with upcurved sides, large labellum calli) alongside those of *F. vanderwerffii* (thin, flat leaves, small labellum calli) indicates the two should be treated as sister species.

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