A NEW SYNONYM FOR *ERAGROSTIS PILGERI* (POACEAE: ERAGROSTIDEAE)

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ABSTRACT

The identity of *Eragrostis ancashensis* P.M. Peterson, Refulio & Tovar, a Peruvian endemic, is discussed; the name is considered to be a synonym of *Eragrostis pilgeri* Fedde. Lectotypes are also designated for the names of some synonyms of *E. pilgeri*, whose holotypes at B were destroyed in 1943. Further remarks about the identity of two paratypes of *E. ancashensis* (*Ferreyra 14577* and *14594*) are included.

RESUMEN

Se discute la identidad de *Eragrostis ancashensis* P.M. Peterson, Refulio & Tovar, una especie endémica de Perú. El nombre se considera sinónimo de *Eragrostis pilgeri* Fedde. Se designan también lectotipos para los nombres de algunos sinónimos de *E. pilgeri*, cuyos holotipos depositados en B fueron destruidos en 1943. Se hace un comentario adicional sobre la identidad de dos paratipos de *E. ancashensis* (*Ferreyra 14577* y *14594*).

Eragrostis Wolf (Chloridoideae: Eragrostideae) is a genus with about 350 species distributed in the tropical and subtropical regions throughout the world (Clayton & Renvoize 1986). In Peru, the genus is represented by 22 species according to Tovar's (1993) treatment, although Davidse and Brako (1993) recognize the existence of 29 entities, which grow mainly in open fields, in dry and sandy soils of the Andes at altitudes between 0 and 4000 meters. Far from being well understood, Peruvian species of *Eragrostis* require a modern treatment making use of more reliable taxonomic characters such as degree of development of secondary branches, disarticulation of the spikelet, length of glumes in relation to the contiguous lemma, and the number of stamens. Using these reliable characters in any future revision of the genus will reflect a clearer picture of new taxa remaining to be discovered, new records, and nomenclatural changes. Likewise, anatomical characters have been demonstrated to be taxonomically significant for infrageneric levels in *Eragrostis* (Van den Borre & Watson 1994).

Eragrostis ancashensis P.M. Peterson, Refulio & Tovar, a Peruvian endemic known only from the Andes of the Cordillera Blanca (Department of Ancash), was recently described by Peterson et al. (2000) on the basis of collections with diagnostic characteristics such as dark-green and plumbeous-spotted spikelets with a ciliate, flattened rachilla. When discussing the relationships of their new entity, the authors pointed out, on the one hand, the possibly close relationship

with *Eragrostis magna* Hitchcock, and on the other, a certain similarity with *Eragrostis macrothyrsa* Hack. Curiously, a detailed examination of the holotype, isoparatypes and the original illustration of *E. ancashensis* does not reveal its genuine alliance with *E. magna* as Peterson et al. (2000) mentioned, since these specimens as well as their figure 1, exhibit a particular set of features, viz. inflorescence with spreading or patent branches, reflexed pedicels, ovate spikelets 3.0–6.1 mm long, glumes equalling or exceeding the contiguous lemma, tenacious rachilla with hairs up to 1.5 mm long, 3–8 florets per spikelet, and ovate lemmas, which clearly distinguish these plants from Hitchcock's entity and which, on the contrary, show an undeniably closer similarity to another well known member of the genus also endemic to Peru, *Eragrostis pilgeri* Fedde. Indeed, when examining the lectotype and additional collections of *E. pilgeri* and comparing them with the material on which *E. ancashensis* was founded, it is impossible in our opinion to find the slightest difference in any way that allows any specific separation between the two species. Glands—which have not been previously reported for *E. pilgeri*—are usually present on the sheaths, pedicels, glumes, lemmas, and paleas of *E. pilgeri*; they are very conspicuous in *Weberbauer 2746* (type of *E. andicola* var. *robustior*). Moreover, it is important to point out the remarkable overlap in distribution of both species, mainly confined to the Department of Ancash (northern Peru), which reinforces our argument. The similarities of *E. pilgeri* were not taken into account by Peterson et al. in the discussion of their new species, *E. ancashensis*.

The preceding evidence—in our opinion—leaves no doubt on the conspecificity of *E. ancashensis* P.M. Peterson, Refulio & Tovar and *E. pilgeri* Fedde and the consequent synonymy of the two names. The following list provides complete and updated synonymy for *Eragrostis pilgeri*.

Eragrostis pilgeri Fedde, Just's Bot. Jahresber. 34:18, pl. 3. 1908. Based on *Eragrostis andicola* Pilger, Bot. Jahrb. Engler 37:377. 1906. Non *E. andicola* Fries, 1905. TYPE: PERU: DEPT. ANCACHS: inter Samanco et Caraz, infra Hacienda Cajabamba; in formatione ± aperta, praecipue gramina intermixtis fruticibus gerente, 3000–3500 ms.m., *Weberbauer 3114*, florens mense Majo 1903 (HOLOTYPE: B-destroyed; LECTOTYPE, here designated: MOL!, **Fig. 1**; ISOLECTOTYPES: fragments at BAA!, US).

Eragrostis andicola forma *humilior* Pilger, Bot. Jahrb. Engler 37:377. 1906. TYPE: PERU: DEPT. ANCACHS: inter Samanco et Caraz, infra Hacienda Cajabamba; in formatione aperta, 3700 ms.m., *Weberbauer 3036*, florens mense Majo 1903 (HOLOTYPE: B-destroyed; LECTOTYPE, here designated: MOL!).

Eragrostis andicola var. *robustior* Pilger, Bot. Jahrb. Engler 37:377. 1906. TYPE: PERU: DEPT. ANCACHS: in prov. Cajatambo, infra Ocros, in formatione aperta, fruticibus et plantis herbaceis mixta, 3000–3200 ms.m., *Weberbauer 2746* (HOLOTYPE: B-destroyed; LECTOTYPE, here designated: MOL!; ISOLECTOTYPE: fragment at US).

Eragrostis carazensis Pilger, Bot. Jahrb. Engler 56:Beibl. 123:27. 1920. TYPE: PERU: DEPT. ANCACHS: Caraz, offene Formation bei 2200–2500 m ü. M., *Weberbauer 2999*, Mai 1903 (HOLOTYPE: B-destroyed; LECTOTYPE, here designated: MOL!; ISOLECTOTYPES: fragments at BAA!, US).

Eragrostis pilgeriana A. Hitchcock, Contr. U.S. Natl. Herb. 24:342. 1927. Based on *E. andicola* Pilger.

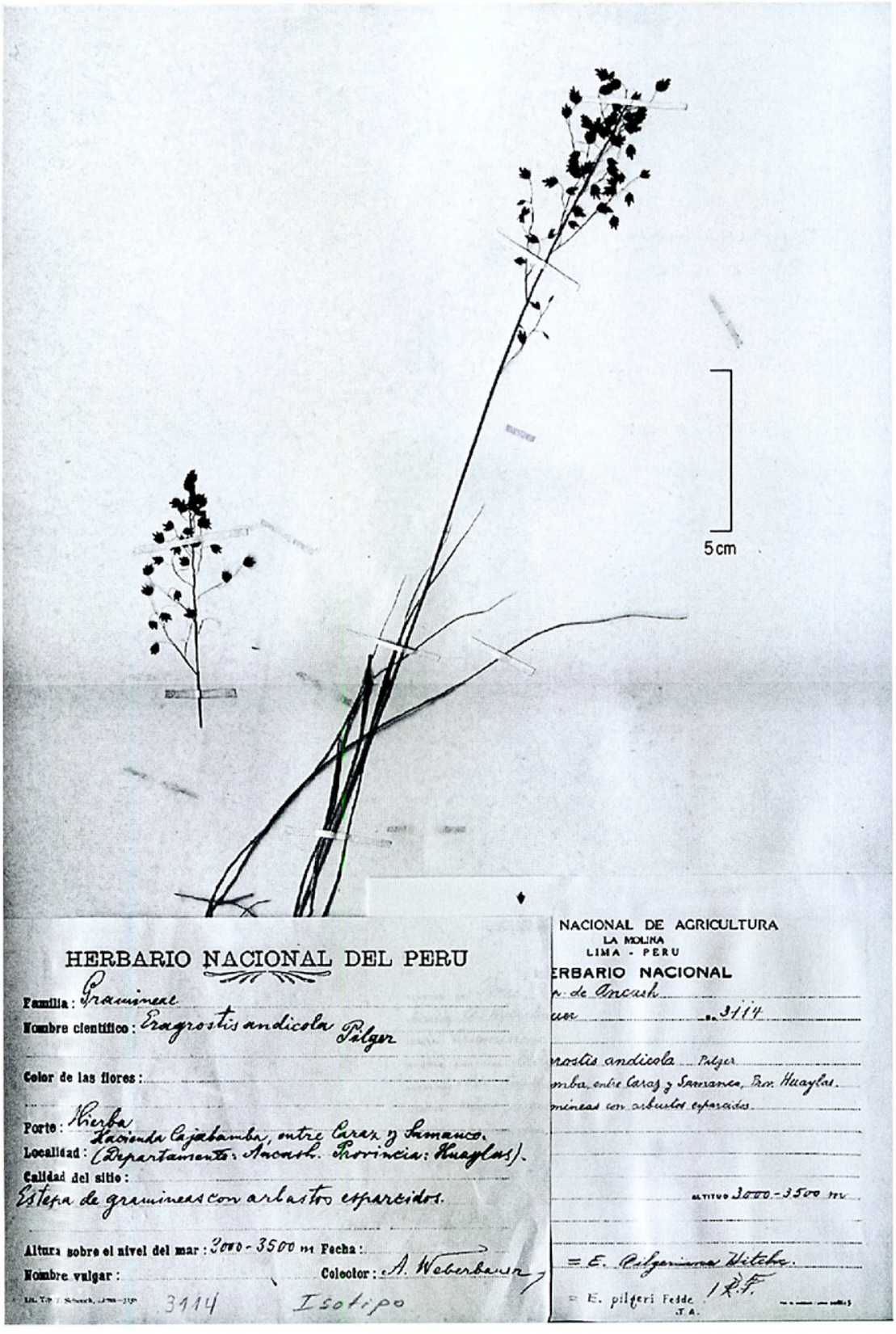

FIG. 1. Lectotype of *Eragrostis pilgeri* Fedde (*Weberbauer 3114*, MOL).

Eragrostis ancashensis P.M. Peterson, Refulio & Tovar, Sida 19:66. 2000. TYPE: PERU: DEPT. ANCASH. Provincia Recuay: Cordillera Blanca, approximately 20 km E of Raquia on Route 02-014 on roads towards Huaraz, along roadside and steep rocky slopes with shrubby Asteraceae, *Lupinus*, *Vicia* and *Commelina*, 3000 m, 20 Mar 1997, *P.M. Peterson & N. Refulio Rodríguez 13793* (HOLOTYPE: USM!; ISOTYPES: K, MO, NY, RSA, TAES, UC, US, WIS).

Lastly, we refer to the paratypes of *E. ancashensis Ferreyra 14577* and *14594*, which we had the opportunity to check. Here, the characteristics so dissimilar in appearance to *E. pilgeri* and consequently to *E. ancashensis* sensu Peterson et al.—namely taller culms (70–95 cm tall), longer and wider inflorescence (20–37 cm long x 12–16 cm wide) with longer branches (up to 14 cm long), longer spikelets (8–15 mm long) which are oblong to narrowly oblong rather than ovate, shorter glumes which are shorter than the contiguous lemma, rachilla with shorter and fewer hairs, more florets per spikelet [(8–)12–20], etc.—could well belong to another member of the genus with completely different relationships.

Thus, a remarkable affinity with *E. bahiensis* Schrader ex Schultes, a species not known from Peru (Davidse & Brako 1993) could rather be established. This species shares some features with the collections of Ferreyra, e.g., plant size, inflorescence size, spikelet size and shape, length of glumes in relation to the contiguous lemma, tenacity of rachilla, number of florets per spikelet, and lemma shape (ovate). Nevertheless, *E. bahiensis* differs by possessing shorter glumes (1.0–1.5 vs 2.0–2.5 mm long), shorter lemmas (1.5–2.0 vs 2.5—3.0 mm long), and a glabrous rachilla (Hitchcock 1951; Renvoize 1998).

We agree with Peterson et al. (2000) that the collections of Ferreyra could have some relationship with *Eragrostis magna*. With this species, they share some characteristics such as spikelet shape and rachilla pilosity. However, *E. magna* differs by having ascending panicle branches, shorter spikelets (7–10 mm long), a deciduous rachilla disarticulating between the florets, and fewer florets per spikelet (7–10) (Hitchcock 1927).

On the other hand, it is possible that such peculiar collections represent quite old stages of *E. pilgeri* because the features they possess have been observed in the latter species with relative frequency by one of us (J.A.) despite not having been reported by previous authors (Hitchcock 1927; Standley 1936; Tovar 1993). In this respect, it is worth remarking the high index of variability noticed in different populations of *E. pilgeri* for characters such as size of plant, degree of pubescence on blades and sheaths, presence of glands on sheaths and spikelets (pedicels, glumes, lemmas, and paleas), degree of panicle development, size and shape of the spikelet, degree of pubescence of rachilla, number of florets per spikelet, which could have compelled Tovar (1993) to place *E. carazensis* into the synonymy of *E. pilgeri*.

Finally, it is possible that these two paratypes belong to a species remaining to be named; however, in our opinion, only a careful examination of a greater number of future collections of these plants will make it possible to determine the consistency and taxonomic validity of the characteristics mentioned. Be-

fore such time, any decision that seeks to clarify the situation of the specimens *Ferreyra 14577* and *14594* would be questionable to us.

Additional material examined: *Eragrostis pilgeri*: **PERU. Dept. Ancash. Provincia Bolognesi:** entre Chasquitambo y Conococha, 3000–3200 m, 24 May 1962, *Ferreyra 14476* (USM); Mishahuayunca, cerro al frente de Ocros, 3400 m, 8 Jul 1974, *Cerrate 6190* (USM); Rumpuquio cerro al S de Ocros, 3500 m, 27 Abr 1977, *Cerrate et al. 6510* (USM); camino a Bellavista, 3200 m, 29 Abr 1977, *Cerrate 6580* (USM). **Provincia Huaraz:** 10 km by road from Cachabamba (77°51'W, 9°27'S), 2870 m, 6–8 Jun 1985, *Smith & Buddensiek 10872* (USM). **Provincia Huaylas:** encima de Huaylas, 2700–2800 m, 3 Jun 1962, *Ferreyra 14606* (USM); Huascarán National Park, Auquispuquio area of ruins (77°58'W, 8°50'S), 3800–3900 m, 7 Apr 1986, *Smith et al. 11959* (USM).

Eragrostis ancashensis: **PERU. Dept. Ancash. Provincia Corongo:** 7 km NW of Yupan on road to Bambas, 3220 m, 26 Mar 1997, *Peterson & Refulio 13915* (USM, isoparatype); 7 km NW of Bambas, 2710 m, 26 Mar 1997, *Peterson & Refulio 13919* (USM, isoparatype). **Provincia Huaylas:** entre Caraz y Huallanca, 2200–2300 m, 2 Jun 1962, *Ferreyra 14577* (USM, paratype); entre Huaylas y el Callejón, 2400–2500 m, 3 Jun 1962, *Ferreyra 14594* (USM, paratype).

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