

## *Grimmia pseudo-anodon* new to Bolivia

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**Abstract.** *Grimmia pseudo-anodon* Deguchi, previously known only from Peru, is reported as new to Bolivia. The specimens are from packets labelled as *Coscinodon trinervis*, collected by Herzog in 1911. *Grimmia pseudo-anodon* is distinct by its non-plicate leaves and straight, centrally attached seta. This is a range extension of some 300 km and an elevational increase of about 1000 m.

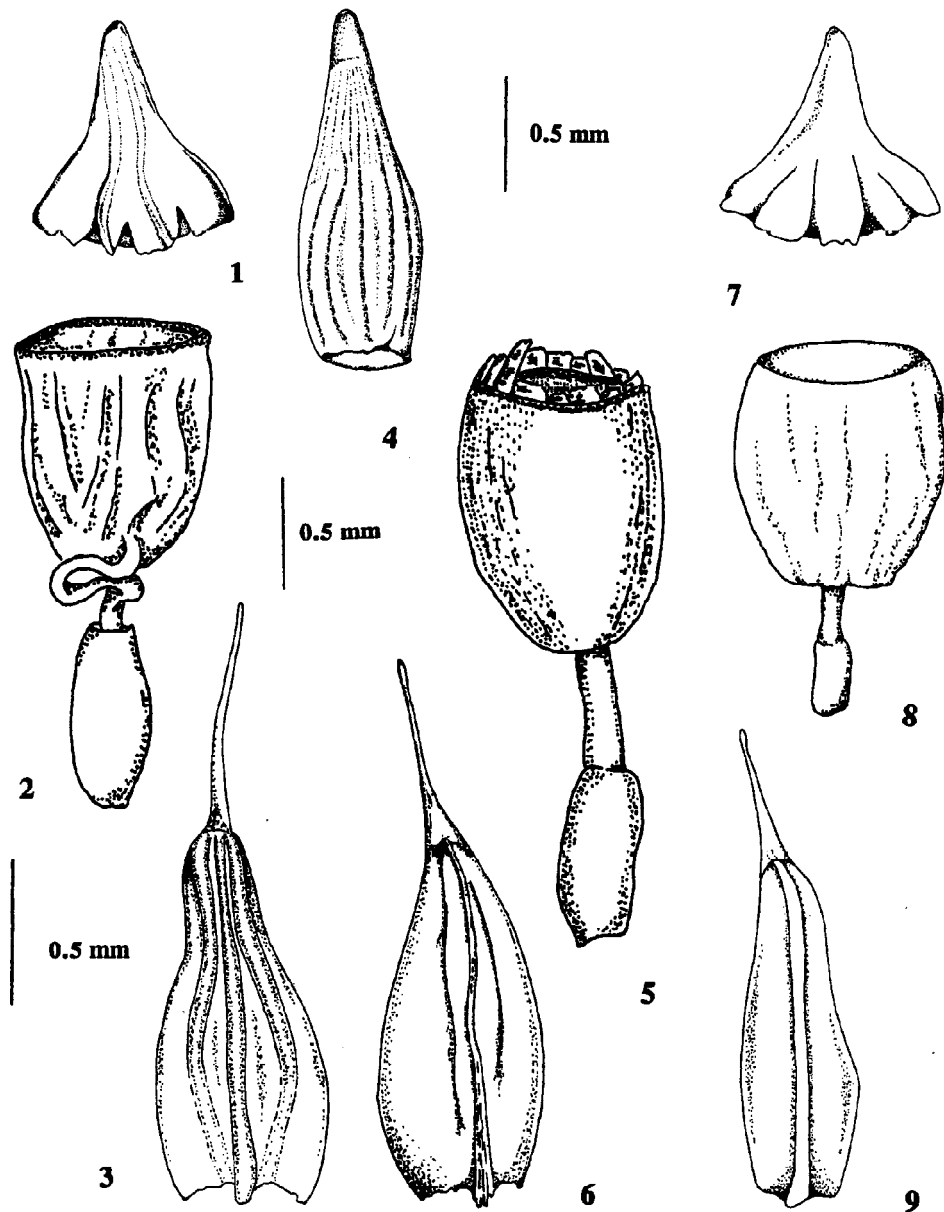
In 1987, Deguchi described a new species, *Grimmia pseudo-anodon*, that he reported as endemic to Peru. Specimens examined by Deguchi came from the provinces of Arequipa and Puno. While examining specimens of *Coscinodon* for a revision of that genus in South America, I came across two collections of *G. pseudo-anodon* from the province of Cochobamba, Bolivia. Specimens in both packets had been identified as *Coscinodon trinervis* (Williams) Broth.

Both collections were made by Herzog in 1911 and numbered as 2970 and 2972. I have found that no specimen in either packet of these collections is *C. trinervis* but rather are two other species, *G. pseudo-anodon* and *Coscinodon pseudocribrosus* Hastings. The latter species I described as new (Hastings, 1996).

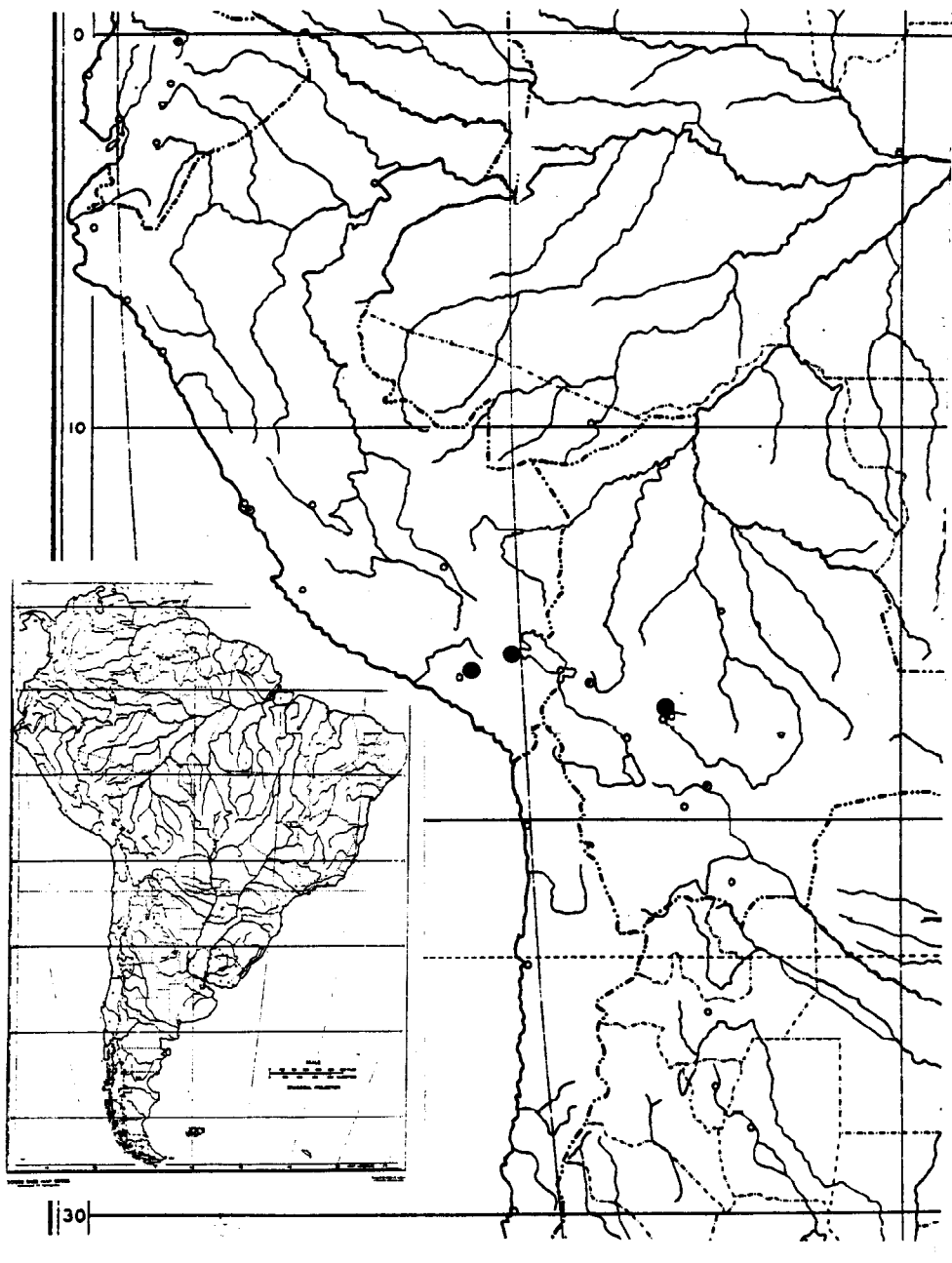
The three species, *C. trinervis*, *C. pseudocribrosus* and *G. pseudo-anodon*, while all having immersed capsules are identifiable by a combina-

tion of character states (Figs. 1-9). *Coscinodon trinervis* has plicate leaves, an arcuate or coiled seta with a ventricose attachment to the capsule, is gymnostomous, and has a small mitrate, smooth calyptra. *Coscinodon pseudocribrosus* also has plicate leaves, but the seta is short, straight, and centrally attached to the capsule. It has a peristome and a large, plicate calyptra. Both species of *Coscinodon* are dioicous, typical of the genus. The leaves of *Grimmia pseudo-anodon* are not plicate and the seta is short, straight, and centrally attached to the capsule. Like *Grimmia anodon* Bruch & Schimp., it is gymnostomous, has a small, mitrate, smooth calyptra and is autoicous.

The discovery of *G. pseudo-anodon* in these packets extends the known range of that species by over 300 km to the SE (Fig. 10). Deguchi (1987) cited an elevation range of 3900 to 4000 m and reported that one specimen was collected on a rocky meadow. The type locality habitat was not reported. The specimens from Bolivia were



**Figures 1-3.** *Coscinodon trinervis*. Williams 2814 (NY). Figure 1. Calyptra. Figure 2. Capsule and seta. Figure 3. Stem leaf. **Figures 4-6.** *Coscinodon pseudocribrosus*. Herzog 2970 (L). Figure 4. Calyptra. Figure 5. Capsule and seta. Figure 6. Stem leaf. **Figures 7-9.** *Grimmia pseudo-anodon*. Herzog 2970 (BM). Figure 7. Calyptra. Figure 8. Capsule and seta. Figure 9. Stem leaf.



**Figure 10.** The known world distribution of *Grimmia pseudo-anodon* Deguchi.

collected at a much higher elevation, 4900 m, and Herzog's habitat description is simply "Felsenmeere." It would appear that the site from Bolivia is considerably higher and drier than those from Peru.

Specimens examined

*Grimmia pseudo-anodon*

BOLIVIA. COCHOBAMBA. Huailattanisee, 17° 04'S, 66° 32'W, 4900 m, *Herzog 2970* (BM, S). Am Abfluss des Altaranigletschers, ca. 4900 m, *Herzog 2972* (L).

*Coscinodon pseudocribrosus*

BOLIVIA. COCHOBAMBA. Huailattanisee, 17° 04'S, 66° 32'W, 4900 m, *Herzog 2970* (F, L, S). Am Abfluss des Altaranigletschers, ca. 4900 m, *Herzog 2972* (S).

**Acknowledgments**

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**Literature Cited**

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