

***OCTOBLEPHARUM POCSII*, SP. NOV. A FRAGILE- AND LONG-LEAVED SPECIES IN THE *O. ALBIDUM* – COMPLEX FROM AFRICA**

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Abstract. *Octoblepharum pocsii* (Calymperaceae) is described from Mount Nimba in Guinea, Africa. It is distinguished by very long, fragile leaves, 8 peristome teeth, small spores and growth on soil.

Key words: *Octoblepharum*, Calymperaceae, Africa, Guinea, Mount Nimba

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INTRODUCTION

There are noteworthy benefits to collecting bryophytes on different continents: ability to recognize widely distributed taxa; greater skill in identifying new collections; and the ability to note characteristics common elsewhere but unusual in the currently studied flora. These all played a part in the recognition of a new species of *Octoblepharum* from Africa. On a recent collecting trip to Mount Nimba, Guinea the junior author found an exceptional specimen of *Octoblepharum* with very fragile, long-leaves growing on a stream bank in uncut forest at the base of the Mount Nimba Strict Nature Reserve. In the field the specimen had an aspect nearly identical to the American species, *O. pulvinatum* (Dozy & Molk.) Mitt. (see Allen 1994). It was further similar to *O. pulvinatum* in its long, fragile leaves and in having leucocysts in 3–4 rows. The African specimen differed in having longer leaves (10–13 vs. 5–9 mm long); lacking any tinge of pink at the base of the leaves; and in having eight rather than 16 peristome teeth.

Africa is thought to be particularly depauperate in species of *Octoblepharum*. At present there are three species known from continent: *O. africanum* (Broth.) Cardot (Madagascar); *O. leptoneuron* Cardot (Senegal); and the widespread *O. albidum* Hedw. *Octoblepharum africanum* is considerably smaller than the Mt. Nimba plants with leaves only

4.5 mm long. *Octoblepharum leptoneuron* has not been seen since it was first collected. Its original description is starkly non-informative, but it appears to be a small species, and may not even be an *Octoblepharum*. On the basis of its 8 peristome teeth the Mt. Nimba collection clearly belongs in the *albidum*-complex, and this is additionally supported by characteristics of the leaf shape, apex and anatomy (see Magill 1981).

The type of *O. albidum* is from Jamaica. In the Neotropics the species is stenotype with small plants that have firm, non-fragile leaves only 3–8 mm long. Our preliminary examination of African material of *Octoblepharum* indicates the genus is much more diverse than is presently recognized and there has been an unfortunate tendency to assign all collections of *Octoblepharum* with eight peristome teeth to *O. albidum* ignoring the variation in plant size, anatomy and habitat that seems to exist.

The literature hints at the occurrence of other long-leaved specimens of *Octoblepharum* in central Africa. Raymond Naveau (1927) refers to two of his specimens (3217 and 1783) collected in forests of Zaire in 1914 under the name *O. albidum* with the additional annotation ‘*forma longifolia* Dixon’ but without a description or illustration. This name was used by other authors, e.g.,

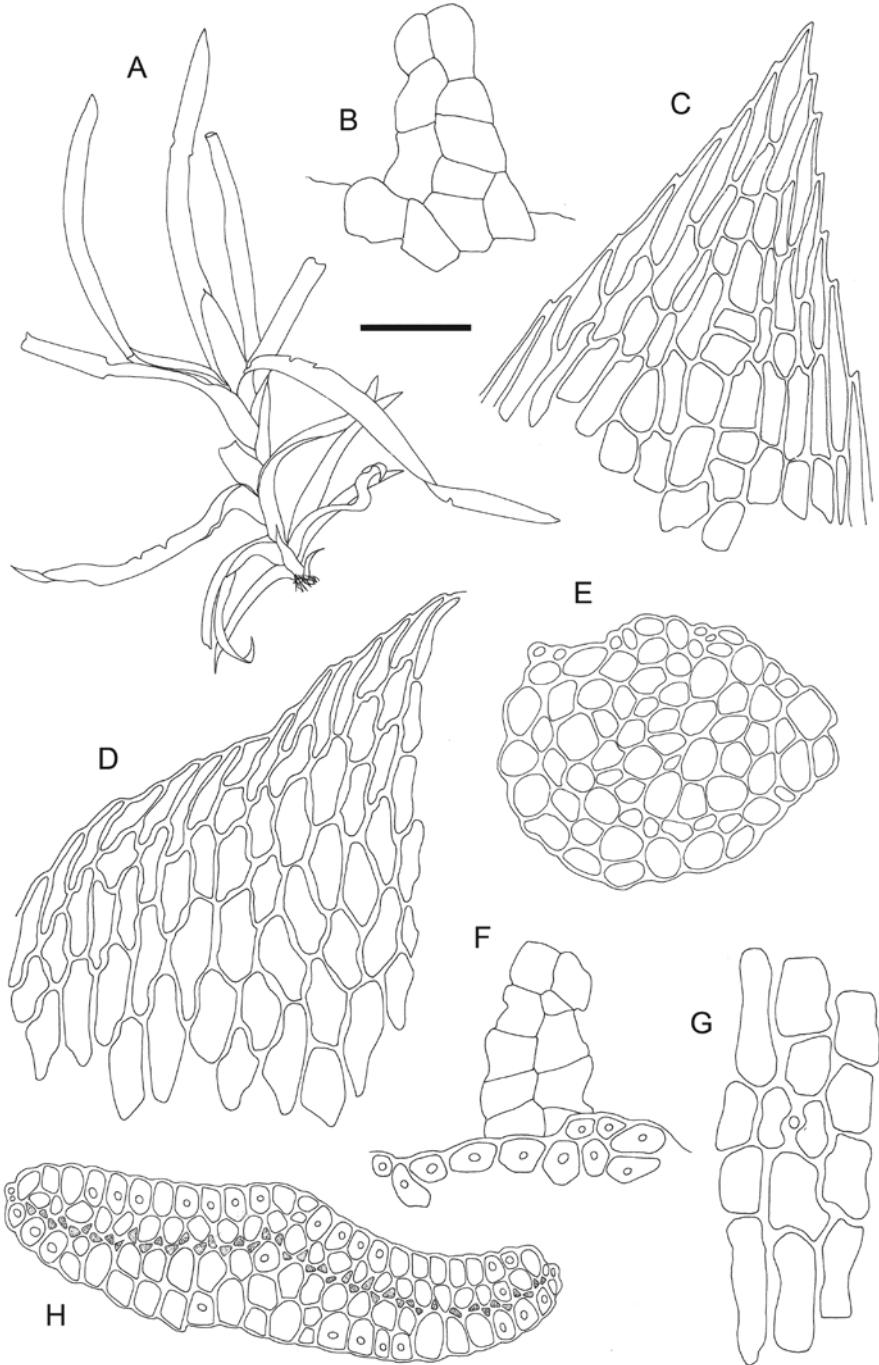


Fig. 1. *Octoblepharum pocsii* R. E. Magill & B. H. Allen, *sp. nov.* A – habit, B – peristome tooth, ventral (inner) surface, C – leaf apex, D – marginal leaf sheath cells, E – stem in cross section, F – peristome tooth, dorsal (outer) surface, G – stomata, H – leaf in cross section. Scale in mm: bar = 0.05 (B, F, G); bar = 0.06 (E); bar = 0.07 (C, D); bar = 0.13 (H); bar = 3.2 (A). All from Allen 30658 (MO, holotype).

Demaret (1940) and Born *et al.* (1993), but with no additional information, specimens, or a description added. It is clear that a more careful review of the African specimens of *Octoblepharum* is required to evaluate this variation before the matter of species composition on the continent can be resolved.

In addition to the morphological characteristics described below the Mt. Nimba specimens were collected on soil along a small stream running through an uncut forest at the base of Mt. Nimba. *Octoblepharum albidum* does indeed occur in the area, but is typically collected on bark, logs or occasionally rock crevices; we have not seen indication of specimens on soil banks.

There are several Neotropical species of *Octoblepharum* with very long, fragile leaves, but all differ from the Mt. Nimba collection in having 16 peristome teeth. We believe the Mt. Nimba collection represents a new species and take this opportunity to name it in honor of Tamás Pócs in recognition of his significant contribution to African bryology.

TAXONOMY

Octoblepharum pocsii Magill & B. H. Allen,
sp. nov. Fig. 1

TYPE: GUINEA, Nzérékoré, Lola, Mount Nimba Strict Nature Reserve, Along lower Zié River, on stream bank. 07°42'53"N 008°21'41"W. *Allen* 30658, 9 July 2012 (HOLOTYPE: MO, ISOTYPE: EGR, HNG).

New species similar to *O. albidum* Hedw. but differing in its much longer, fragile leaves with consistently more layers of quadrate to very short rectangular leucocysts, and smaller spores.

Plants large, in loose tufts, glaucous green, on soil and rock. *Stems* short, 0.5–1.5 mm high, unbranched, in section round, cells uniform, in 8 rows, thin-walled, red-brown, central strand absent. *Leaves* long lingulate, reflexed above oval base, 10–13 mm long, acute; margins plane, smooth below, weakly serrulate at apices; limbidia

inconspicuous in base, cells rectangular, unistratose, 2–3 cells wide, thin walled; basal laminal cells large, short rectangular, thin walled, in section basal lamina unistratose toward margin, becoming bistratose internally, central basal lamina multistratose, 4–7 layers of leucocysts surrounding chlorocysts, leucocysts in 2 rows ventrally, 4–5 dorsally, chlorocysts quadrate or triangular at base; lamina at midleaf with 6 layers of leucocysts surrounding central, alternating rows of triangular chlorocysts; distally leucocyst in 4(–5) layers.

Autoicous. *Perigonia* bud-like, axillary; perigonal leaves ovate apiculate and irregularly prorate marginally; perichaetia terminal. *Setae* dark red-brown, smooth, 6–8 mm long. *Capsules* erect, short-obloid, 1 mm long, dark, red-brown; exothecial cells at mouth red-brown, quadrate, uniformly thickened, at base short rectangular, yellowish brown, vertical walls thickened; phanerophore stomata at base; peristome teeth 8, short, fragile, flat, trabeculae faint, smooth, median line on dorsal and ventral surface. *Opercula* rostrate, 0.8 mm long, beak erect; *Calyptra* cucullate, smooth, yellow with dark red tip, 1 mm long. *Spores* round, yellow-green, weakly granulate, 15–18 µm in diameter.

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