

CALLIERGONELLA CUSPIDATA (HEDW.) LOESKE (MUSCI) –
A NEW GENUS FOR TROPICAL AFRICA

CALLIERGONELLA CUSPIDATA (HEDW.) LOESKE (MUSCI) –
НОВЫЙ РОД МХОВ ДЛЯ ТРОПИЧЕСКОЙ АФРИКИ

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Abstract

Calliergonella cuspidata (Hedw.) Loeske (Musci, Amblystegiaceae), a widespread boreal moss found in Ethiopian mountains, at 3700 m. Previously in Africa this species was known only from the northernmost Morocco and Algeria. The distribution of this species outside Holarctic is discussed.

Резюме

Calliergonella cuspidata (Hedw.) Loeske (Musci, Amblystegiaceae) – широко-распространенный вид умеренной зоны Северного полушария, найден в горах Эфиопии, на высоте 3700 м над уровнем моря. Раньше в Африке этот вид был известен только в узкой полосе по побережью Средиземного моря в Марокко и Алжире. Обсуждается распространение вида за пределами Голарктики.

In the course of the study of vegetation of Ethiopia the second author collected some moss specimens. Partly they have been identified by the first author, and among others he found *Calliergonella cuspidata* (Hedw.) Loeske. The label is as follow:

Ethiopia, 6°54'N–39°55'E, National Park Bale, road from Goby to Sonetti Plateau, 3700 m alt., *Erica arborea* + *Alchemilla haumannii* community, wet place with *Carex monostachya* and thick moss carpet. 7.I.1996 leg. V. N. Pavlov. Plants sterile.

This is the first record of *Callierginella cuspidata* from sub-Saharan Africa (cf. O'Shea, 1995, and his updated database, 1998). This genus was usually considered to be monotypic, until recently Hedenäs (1990) transferred into it also species well-known as *Hypnum lindbergii* Mitt. (*Calliergonella lindbergii* (Mitt.) Hedenäs). The latter species has never been recorded from Africa. Therefore, this is also the first record of the genus *Calliergonella* in tropical Africa.

Calliergonella cuspidata is a widespread wetland species in boreal region of both Eur-

asia and North America. In Middle East it is known from Turkey and Iran by several records, and from Cyprus, Syria, Iraq and Lebanon by single record from each (Frey & Kürschner, 1991). In Africa *C. cuspidata* has been reported from Rif (El-Rif) and Tell Atlas mountain ranges, along the Mediterranean Sea in Morocco and Algeria (Jelenc, 1953, 1967).

In South-East Asia, *C. cuspidata* has been reported from New Guinea, but Ochyra & al. (1991) found that this was a result of misidentification. So, the southernmost localities in East Asia are in Sichuan and Guizhou Provinces of China (Redfearn & al., 1996). Also *C. cuspidata* has been reported from Xizang, or Tibet (Redfearn & al., l. c.) and Eastern Himalayas (Gangulee, 1978).

In America south of U.S.A. *C. cuspidata* is known in many countries. In Mexico it has been found only in one place (Sharp & al., 1994), but it is known from many places in Jamaica (Ochyra, pers. comm.). There are several localities of this species in Columbia (at 3000-3800 m, Churchill & Linarez, 1995), one in Peru (4050 m, Hegewald & Hegewald, 1985), few in Equa-

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dor, and one record is from NW Argentina in the Andes in Rioja (Ochyra, pers. comm.;). All Adnean collections were made above 3000 m elev. Schäfer-Verwipm (1989) reported *C. cuspidata* in eastern Brasil at 1580-1660 m, and noted also an old record from the area of Rio de Janeiro, which however is difficult to confirm.

In New Zealand *C. cuspidata* occurs both in South and North Islands and often grows in antropogenic habitats, so Schofield (1974) concluded that it has been likely introduced there. In Australia *C. cuspidata* has been reported from Victoria (Scott & al., 1976), but later Strewimann & Touw (1981) added also other neighboring states of south-eastern Australia, namely ACT and New South Wales. Ratkowsky

(1980) and Dalton & al. (1991) also reported it from Tasmania.

The most probable origin of the Ethiopian population of *Calliergonella* is by mean of migrated waterfowl birds. Several other mosses, commonly associated with *Calliergonella* in European fens are known in high mountains of East Africa – *Campylium stellatum* (Hedw.) J. Lange & C. Jens., *Cratoneuron filicinum* (Hedw.) Spruce, *Drepanocladus aduncus* (Hedw.) Warnst., etc. (O'Shea, 1995). It is noteworthy, that all of them are dioicous (as well as *Calliergonella*) and produce sporophytes rare to very rare. Sporophytes are ripening in the first half of summer, so it is unlikely, that spores remain alive up to the time of autumn migration. So, the vegetative reproduction is more likely.

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