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Ann. Naturhist. Mus. Wien, B	117	143–146	Wien, Jänner 2015
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Carex hartmanii CAJANDER (Cyperaceae) in Armenia

J. Koopman¹, H. Więclaw², G. Fayvush³ & E. Vitek⁴

Abstract

Carex hartmanii (Cyperaceae) was collected for the first time in Armenia in 1957 and identified in 1961 by Egorova. In the Flora of Armenia this species is not mentioned. However, two recent collections confirm the existence of *C. hartmanii* in Armenia; its distribution is discussed.

Key Words: Flora of Armenia, *Carex*, *C. hartmanii*.

Introduction

During 2002–2012 field trips were arranged to Armenia, in collaboration with the herbaria ERE (Academy of Science, Yerevan) and W (Natural History Museum Vienna). The aim was intensive collections from under-represented areas and the results are several new findings of the Flora of Armenia (e.g. VITEK et al. 2010, ФАЙВУШ et al. 2013).

Results and Discussion

During the herbarium study at the Department of Botany of the Natural History Museum in Vienna, Austria in July 2014 the first two authors saw some *Carex* material collected by the fourth author in 2007 in Armenia. One of the sheets contains material of *Carex hartmanii* CAJANDER. This species is not mentioned in Flora SSSR (KREZETOWICZ 1935) nor, in Flora of Armenia (KHANDJIAN 2001). It is not clear whether Khandjian had accidentally overlooked the only specimen in the herbarium in Yerevan, from Lori, 1957, or, that it was thought to be a dubious record.

EGOROVA (1999) gives *Carex hartmanii* for the southern Caucasus and in the Caucasian Flora Conspectus (EGOROVA 2006) the record from Lori is cited.

Checking the available information on *Carex* in Armenia for the preparation of the Conspectus Florae Armeniae (in prep.) the third author could identify the specimen and provide the exact record.

Later the fourth author provided the first two authors with an additional 281 herbarium sheets with *Carices* from Armenia of which one more turned out to belong to *C. hartmanii*.

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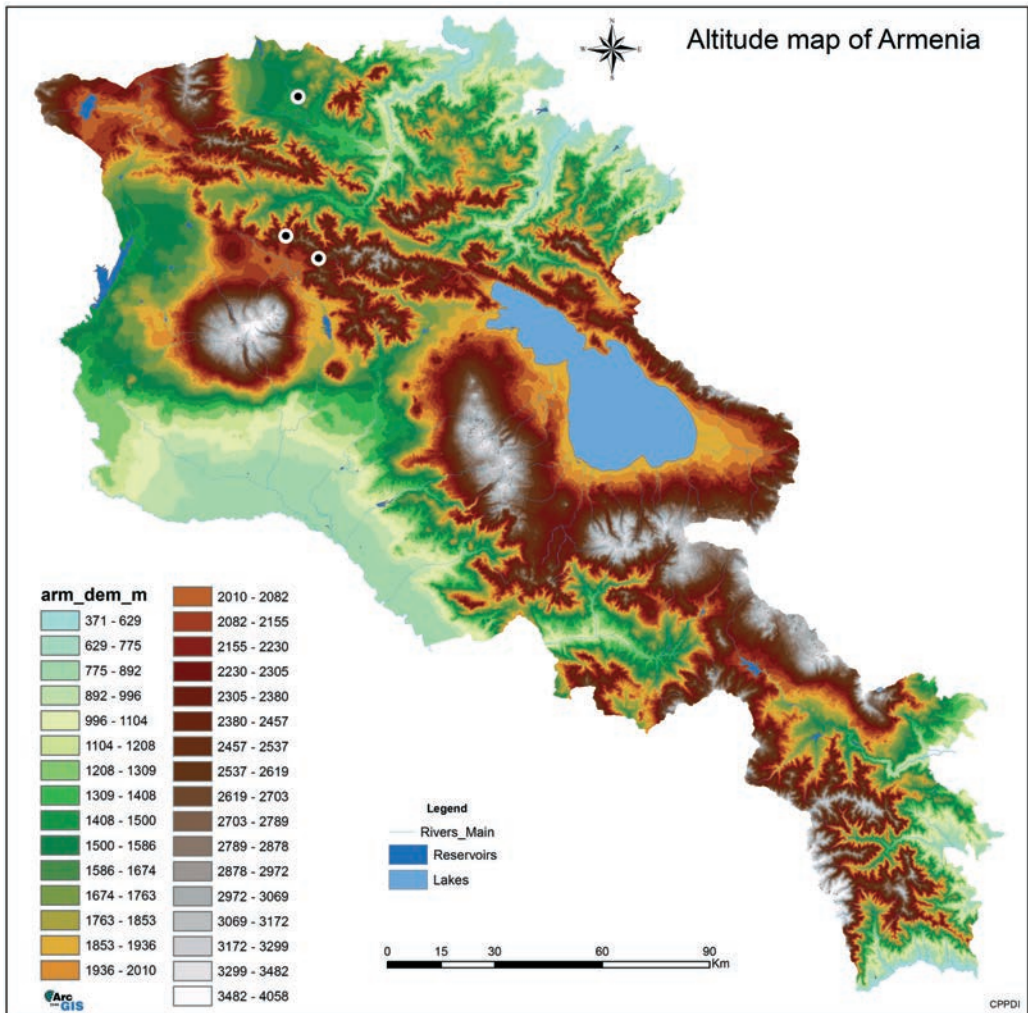


Fig. 1: *Carex hartmanii*, distribution in Armenia.

C. buxbaumii and *C. hartmanii*, both belonging to the section *Atratae*, are two species which used to be confused quite often. Nowadays, after CAJANDER had made clear that they concern two species, they are relatively easy to recognize (CAJANDER 1935). The spikes of *C. buxbaumii* are thicker and bluish-green, the thinner ones of *C. hartmanii* are greenish-brown. *Carex hartmanii* is widely spread over Europe (KOOPMAN 2011). It is missing in Iceland, the British Isles, the Iberian Peninsula, Belgium and Luxembourg, and, most of the Balkan countries, European Turkey and Moldova. On the Caucasus it is also known in the neighbouring country Georgia. *Carex buxbaumii* has an almost identical distribution pattern in Europe but is missing in Georgia.

Other species from section *Atratae* (*Racemosae*) present on the Caucasus are (nomenclature according to KOOPMAN 2011): *C. atrata* subsp. *atrata*, *C. atrata* subsp.

aterrima, *C. caucasica*, *C. medwedewii*, *C. melananthiformis*, *C. oligantha*. The last four mentioned species are restricted in Europe to the Caucasus, of which *C. melananthiformis* is not known in Armenia, only from Azerbaijan.

***Carex hartmanii* in Armenia**

Specimens: Armenia, Stepanavan region, Getavan village [today Saratovka, 41°04'N 44°18'E], *Carex-Juncus* marshes, 6.7.1957, A. Barsegjan; det. T.V. Egorova 1961 [ERE]; – Armenia, Aragatsotn province, area N of Aparan, valley c. 2.4 km E of Melikyugh, 40°39'34"N 44°23'04"E, 2230 m s.m., meadow and along rivulet, 4.6.2006, E. Vitek 06-1060 [ERE, W 2010-0010344, NY]; – Armenia, Aragatsotn province, old pass track E of Spitak pass, above Sipan, 40°44'01-07"N 44°16'16"E, 2190-2200 m s.m., mountain meadows with boggy areas, in loose groups, 19.6.2007, K. Tamanian, H. Ter-Voskanyan & E. Vitek 07-0838 [ERE, W 2010-0001496, BRNU, NY].

The first locality belongs to the administrative province of Lori. The second and third to Aragatsotn, all in the northern part of the country (Figure 1). The first locality belongs to the Lori floristic region, the other two to Aparan (TAKHTAJAN et al. 1986).

Concluding remarks

At first sight the inflorescence of *C. hartmanii* reminds of the one of *C. nigra* and its allies, although the former has three stigmas and the latter and its allies only two. However it could be one of the reasons why *C. hartmanii* may have been rarely collected and, possibly overlooked. It has also only recently been found in Bulgaria in 2004 (HÁJEK et al. 2005).

There prove to be another 30 *Carex* taxa which are known from the neighbouring Caucasus countries Georgia, Azerbaijan (KREZETOWICZ 1935) and/or Iran (KUKKONEN 1998). Some of these taxa may or may not be found in Armenia.

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