



Taxonomic notes on some problematic *Carex* (Cyperaceae) names from SW Asia

PEDRO JIMÉNEZ-MEJÍAS^{1,*}, GIOVANNI E. RODRÍGUEZ-PALACIOS¹, MOHAMMADAMINI-RAD² & SANTIAGO MARTÍN-BRAVO³

¹School of Biological Sciences, Washington State University, 99164, Pullman, WA, USA.

²Department of Botany, Iranian Research Institute of Plant Protection, P.O. Box 19395-1454, Tehran, Iran

³Botany Area, Department of Molecular Biology and Biochemical Engineering, Pablo de Olavide University, ctra. de Utrera km. 1, 41013, Sevilla, Spain

* Corresponding author: pjimmej@gmail.com, pjimenez.mejias@wsu.edu

Abstract

A taxonomic survey based on revision of herbarium material and critical study of bibliography is conducted to elucidate the taxonomic and nomenclatural status of four problematic *Carex* names: *C. eremitica*, *C. mediterranea*, *C. orbicularis* subsp. *kotschyana* var. *caucasica*, and *C. transcaucasica*, all described from SW Asia. We find that *C. eremitica* should be considered a synonym of *C. stenophylla* (section *Boerneriae*). We perform the lectotypification of *C. mediterranea*, a synonym of *C. hispida* (section *Thuringiaca*). We discuss the taxonomic affinities of *C. transcaucasica* (section *Phacocystis*) and combine this name under *C. nigra* (*C. nigra* subsp. *transcaucasica*). We synonymize *C. orbicularis* subsp. *kotschyana* var. *caucasica* to *C. nigra* subsp. *transcaucasica*. Eventually, we indicate that populations previously believed to be *C. orbicularis* actually belong to *C. nigra* subsp. *transcaucasica*, confirming its presence in Iran, and expanding its range to Iraq.

Key words: Caucasus, Eastern Mediterranean, Iran, Iraq, Middle East, nomenclature, Turkey, typification

Introduction

The flora of southwestern Asia is relatively well-known from a taxonomic point of view. Several regional floras give a relatively good and updated coverage for most of the families in the territory (e.g. Flora Iranica (Rechinger 1963-in progress; Assadi *et al.* 1988-in progress), Flora of Turkey (Davies 1965–1985), Flora Palaestina (Zohary & Feinbrun-Dothan 1966–1986), Nouvelle Flora du Liban et de la Syrie (Mouterde 1966–1970), Flora of Iraq (Townsend & Guest 1966–1985), Flora of the Arabian Peninsula and Socotra (Miller & Cope 1996)). However, taxonomic treatments of controversial groups in this area are being constantly revised (Amini-Rad *et al.* 2010, Eker *et al.* 2014, Jiménez-Mejías *et al.* 2014, among others), and new species continue to be frequently described (Vural *et al.* 2012, Martín-Bravo & Jiménez-Mejías 2013, Ranjbar 2010, among others).

Carex Linnaeus (1753: 972) is the largest genus in the temperate zone and one of the largest in the world (Global *Carex* Group in press). In Europe and the Mediterranean Basin it is represented by around 220 species (Jiménez-Mejías & Luceño 2011a). In this paper we address some taxonomic problems on four names in *Carex*. We also reassess the taxonomic and geographical delimitation between *C. orbicularis* (Boott 1845: 254) and *C. nigra* (L.) Reichard (1778: 96) in the Middle East.

Carex eremitica Paine

Carex eremitica Paine (1875: 126) is currently an accepted species presumably distributed in the southeastern Mediterranean basin (Israel-Palestine and Jordan; Govaerts 2014, Jiménez-Mejías & Luceño 2011a). Its taxonomic circumscription and sectional placement have been obscure, and the actual taxonomic status of this species has not been revised to date. It was described in the Natural History section of the Identification of Mount Pisgah (Paine 1875), based on materials probably collected by Paine himself in Balqa (“Belqa”) plain, today northwestern Jordan.

Paine provided a detailed description of the species, remarking its androgynous spikes congested in a broadly capitate inflorescence (“*spicis in capitulum lato-ovatum spice masculum confertis*”), which allows identifying it as