

An Impostor Identified: Berkeley Sedge Is Eurasian Grey Sedge

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Over the past fifteen years, emerald tussocks of Berkeley sedge have been so successfully established in West Coast gardens that many gardeners have affirmed its horticultural virtues and its role in helping connect their gardens to their native contexts. As a rapidly growing, nearly ever-green perennial for sun or shade, wet or dry soils, Berkeley sedge also tolerates trampling, and reproduces readily from seed in many gardens—all traits sought after in natives for gardens or wildland revegetation, but despised in alien weeds.

As the horticultural renown of Berkeley sedge grew, so did doubt about its species assignment to *Carex tumulicola* and provenance as a West Coast native. My suspicions arose over a decade ago after my attempts to confirm identity of some nursery stock did not lead to *C. tumulicola*, or to any other North American sedge. Others reached the same perplexing conclusion independently. Although the name Berkeley sedge presupposes that mother stock was obtained from native populations in the vicinity of Berkeley, California, none of the plants sold as Berkeley sedge exhibit the combination of character-states listed for foothill

sedge (*C. tumulicola*) in the regional floras that include any portion of its native range from British Columbia to Southern California.

Misidentification Resolved

During 2005, Rick Darke, known for his work with ornamental grasses, graciously arranged to have Dr Tony Reznicek of the University of Michigan Herbarium examine fresh Berkeley sedge material from California. Dr Reznicek is a *Carex* expert and author of *Carex* treatments for the new multi-volume *Flora of North America North of Mexico*. In late November, 2005, Dr Reznicek provided his determination that Berkeley sedge is actually *C. divulsa*, first described in 1787 from the British Isles, where it is known as grey sedge or grassland sedge, not synonymous with Gray's sedge (*C. grayi*) nor gray sedge (*C. grisea*), both of eastern North America. Grey sedge (*C. divulsa*) is native from Europe and North Africa east to Central Asia. Naturalized stands are known from Canada (Ontario), United States (Pennsylvania, Maryland, Missouri, California), Argentina, Australia, and New Zealand.

A pot of the more loosely tufted foothill sedge (*Carex tumulicola*).
Photographs by
Dave Fross



A ground cover planting of the densely tufted grey sedge (*Carex divulsa*) in a Pasadena garden.

Diagnostic Features of Grey Sedge and Foothill Sedge

Scientific Name	<i>Carex divulsa</i> Stokes in Withering, <i>A Botanical Arrangement of British Plants</i> (ed. 2) 2: 1035. 1787.	<i>Carex tumulicola</i> Mackenzie, <i>Bulletin of the Torrey Botanical Club</i> 34: 154. 1907.
Epithet Etymology	L: <i>divulsus</i> , torn apart, interrupted; pp. of <i>divello</i>	L: <i>tumulus</i> , hill; <i>-icola</i> , inhabitant
English Names	GREY SEDGE, GRASSLAND SEDGE	FOOTHILL SEDGE
Native Range	Throughout EUROPE to AZORES, CANARY ISLANDS, MOROCCO, ALGERIA, TUNISIA; TURKEY, ARMENIA; AZERBAIJAN; GEORGIA; SYRIA, ISRAEL, LEBANON, JORDAN, IRAQ, IRAN; TURKMENISTAN, UZBEKISTAN, TAJIKISTAN, KYRGYZSTAN ¹	CANADA, British Columbia: Vancouver Isl (Victoria, Metchosin) ^{2,3} UNITED STATES, Washington: San Juan, Island, Pierce, Clark, Skamania, and Klickitat Counties; Oregon: Columbia, Tillamook, Lincoln, Polk, Marion, Benton, Linn, Lane, Douglas, Coos, Curry, Josephine, and Jackson Counties; California: Humboldt, Mendocino, Lake, Sonoma, Napa, Marin, Solano, Contra Costa, San Francisco, Alameda, San Mateo, Santa Clara, Santa Cruz, Monterey, San Luis Obispo, Santa Barbara (Santa Rosa Isl, Santa Cruz Isl), Los Angeles (San Clemente Isl); Butte, Colusa, Placer, Sacramento, Tuolumne, Merced, Fresno and Kern (Mount Pinos) Counties
Naturalized Range	CANADA, Ontario: Essex County ⁴ UNITED STATES, Pennsylvania; Maryland; ⁵ Missouri; California; ARGENTINA; AUSTRALIA; NEW ZEALAND	None reported
Plants	densely tufted, without conspicuous rhizomes	loosely tufted, with short, stout rhizomes
Culms	<i>width basally</i> 1.8–3.0 mm <i>width distally</i> 0.8–1.0 mm	1.0–1.6 mm 0.5–0.8 mm
Inflorescences	<i>length</i> 50–180 mm <i>proximal internodes</i> ≥ 2 times length of proximal spikes <i>proximal bracts</i> length < 1/4 inflorescence length	15–50 mm ≤ 2 times length of proximal spikes length > 3/4 inflorescence length
Pistillate Scales	<i>color</i> translucent green to pale brown with green <i>length</i> 2.8–3.7(–4) mm, body shorter than perigynium <i>width</i> 1.3–2.6 mm, as wide as perigynium	red brown with green to white midvein 2.0–2.8 mm, body as long as perigynium 3.3–5.2 mm, wider than perigynium
Perigynia	<i>color</i> pale yellow, dark brown to black in fruit <i>width</i> (1.7)–2.0–2.6 mm <i>base</i> broad <i>beak</i> 0.8–1.5 mm, < 1/3 body length <i>attitude</i> deflexed > 45°	pale green to pale brown in fruit 1.5–2.0 mm abruptly narrowed 1.0–3.0 mm, 1/3 to 1/2 body length appressed
Anthers	1.5–1.9 mm	1.9–2.4 mm

¹ Chater, AO. 1980. *Carex* L. pp. 290–323 In Tutin, TG; Heywood, VH; Burges, NA; Moore, DM; Valentine, DH; Walters, SM; Webb, DA, (eds.), *Flora Europaea*. Vol 5. Cambridge: Cambridge University Press.

² Ceska, A; Ceska, O. 2000. *Carex tumulicola*: an overlooked sedge in British Columbia. Botanical Electronic News 252. <http://www.ou.edu/cas/botany-micro/ben/ben252.html>.

³ Douglas, GW; Lomer, F; Roemer, H. 1998. New and rediscovered native vascular plant species in British

Columbia. *The Canadian Field-Naturalist* 112: 276–279.

⁴ Campbell, CA; Reznicek, AA. 1977. New vascular plant records on Pelee and East Sister Islands, Essex County, Ontario. *The Canadian Field-Naturalist* 92(1): 384–390.

⁵ Shetler, SG; Stone, S. 2002. Annotated Checklist of the Vascular Plants of the Washington-Baltimore Area, Part II, Monocotyledons. Washington, DC: Smithsonian Institution.