

**Meadow foxtail (*Alopecurus pratensis* L., Poaceae), an introduced Eurasian
and African grass new to Hawai'i**

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Poaceae

***Alopecurus pratensis* L.**

New state record

The widespread, temperate Eurasian and North African grass known as meadow foxtail was discovered growing in an active cattle pasture in Volcano, Hawai'i on 23 March 2016. There was at least one clump present, with four fruiting infructescences, in a pasture dominated by 'ōhi'a (*Metrosideros polymorpha* Gaudich.) trees. The grassy understory was dominated by rice meadow-grass (*Ehrharta stipoides* Labill.) and violet crabgrass (*Digitaria violascens* Link); small canary grass (*Phalaris minor* Retz.), a rare introduction to Hawai'i, was present (Judziewicz 16507, UWSP) a few meters away. Crins (2007) and the USDA Plants Database (2016) record the occurrence of *Alopecurus pratensis* in 40 continental U.S. States as well as Alaska, but this is the first record of the species, as well as the genus *Alopecurus*, in the state of Hawai'i (Wagner *et al.* 1999; Clayton & Snow 2010; Snow & Lau 2010; Herbst & Lorence 2012; Imada 2012).

With its spikelike panicle and pasture habitat preference, meadow foxtail superficially resembles two other Eurasian pasture grasses that are naturalized in Hawai'i: Sweet vernal grass (*Anthoxanthum odoratum* L.) and timothy (*Phleum pratense* L.). *Anthoxanthum*, which is common in the Volcano area of Hawai'i Island, differs from *Alopecurus* in its glabrous (rather than pubescent) spikelets that have three florets, rather than a single floret. *Phleum*, which is known from Hawai'i but not from Hawai'i Island, differs from *Alopecurus* in having awned (rather than unawned) glumes and an unawned (rather than awned) floret.

Material examined. **HAWAI'I:** Volcano Guest House property, 11-3733 Ala Ohia St., Volcano, Puna Dist., 19°25'28.75"N, 155°12'24.5"W, elev 3440 ft (1048 m), 23 Mar 2016, *E. J. Judziewicz 16508* (BISH, UWSP, and Hawai'i Volcanoes National Park Herbarium).

Literature Cited

- Crins, W.J.** 2007. *Alopecurus*, pp. 780–788. In: Barkworth, M.E., Capels, K.M., Long, S., Anderton, L.K. & Piep, M.B. (eds.), *Flora of North America, vol. 24: Magnoliophyta: Commelinidae (in part): Poaceae, part 1*. Oxford University Press, New York. 911 pp.
- Clayton, W.D. & Snow, N.** 2010. *A key to Pacific grasses*. Royal Botanic Gardens, Kew. 107 pp.
- Herbst, D.R. & Lorence, D.H.** 2012. Flora of the Hawaiian Islands website. Version 1.3, 12 April 2012, available at: <http://botany.si.edu/pacificislandbiodiversity/hawaiian-flora/>. [Accessed 18 April 2016]
- Imada, C.T. (ed.)** 2012. Hawaiian native and naturalized vascular plants checklist (December 2012 update). *Bishop Museum Technical Report* 60, 29 pp. + 7 appendices.

- Snow, N. & Lau, A.** 2010. Notes on grasses (Poaceae) in Hawai'i. *Bishop Museum Occasional Papers* **107**: 46–60.
- USDA Plants Database.** 2016. Available at: <http://plants.usda.gov/core/profile?symbol=ALPR3> [Accessed 18 April 2016]
- Wagner, W.L., Herbst, D.R. & Sohmer, S.H.** 1999. *Manual of the flowering plants of Hawai'i*. Revised ed. 2 vols. University of Hawai'i Press & Bishop Museum Press. 1919 pp.