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A FIRST RECORD OF *POROPHYLLUM RUDERALE* (ASTERACEAE) FROM THE ARKANSAS FLORA

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ABSTRACT

Porophyllum ruderale is reported here for a first occurrence in the Arkansas flora from Clark County. In 2022, a single, escaped plant was discovered growing in highly disturbed urban habitat within the city of Arkadelphia. No other plants of *P. ruderale* were apparent at the vicinity. In 2023, at the same location, seven new plants were present as a result of self-seeding from the original 2022 plant. This paper documents the first known spontaneous occurrences of *P. ruderale* in the eastern USA, east of Texas.

Porophyllum ruderale (Jacq.) Cass. is reported here as the first naturalized occurrence in Arkansas from a highly disturbed habitat in Clark County, within the city of Arkadelphia. This species previously has not been reported for the state (Arkansas Vascular Flora Committee 2006; Strother 2006; Gentry et al. 2013; Kartesz 2015; Weakley 2022; USDA, NRCS 2023). Our record and a 2021 specimen from South Carolina apparently are the easternmost documented spontaneous occurrences of this species in the continental USA. In April 2022, a single plant of *P. ruderale* was discovered growing in a rubbish heap within a residential area (Figs. 1 and 2). No cultivated or other escaped plants of *P. ruderale* were observed in the area. When discovered, the *P. ruderale* plant was about one meter tall and sterile. The plant was monitored throughout the growing season, where it continued growth and development through flowering and fruit production. The plant was killed with the onset of freezing temperatures later that year.

In May 2023, the location where the 2022 plant was discovered was revisited and seven seedling plants of *P. ruderale* were present (Fig. 3). These plants apparently were a result of self-seeding by the original 2022 individual. No additional plants were observed outside the location of the rubbish heap. The site will continue to be monitored periodically for recurring recruitment and subsequent spread. The source of the original 2022 plant is unknown; however, the seeds of *P. ruderale* are wind-dispersed, thus dissemination from a cultivated plant in the area is presumed.

Porophyllum ruderale sometimes is cultivated for use as a seasoning for Latin American cuisine. It has a flavor similar to cilantro (*Coriandrum sativum*) and often is used as a substitute for it. *Porophyllum ruderale* is a popular cultivated condiment in Mexico and South America and is used raw in many foods, such as tacos, soups, and salads. Its multiple common names (Bolivian coriander, papalo, papaloquelite, poreleaf, quilquiña, summer cilantro, yerba porosa) are as a result of its popularity (Southwest Desert Flora 2023). Cultivated plants of *P. ruderale* grown for culinary purposes may have been the source of the escaped plant. Its cultivation, combined with wind-dispersed seeds and the ability to self-seed, makes additional occurrences of this species in the flora plausible.

Naturalized plants of *Porophyllum ruderale* also are known from South Carolina, based on a 2021 specimen: *Nelson 43006*, USCH (SERNEC 2023). Nelson's label describes its occurrence as weedy along a riverbank among flood-cast logs and branches.

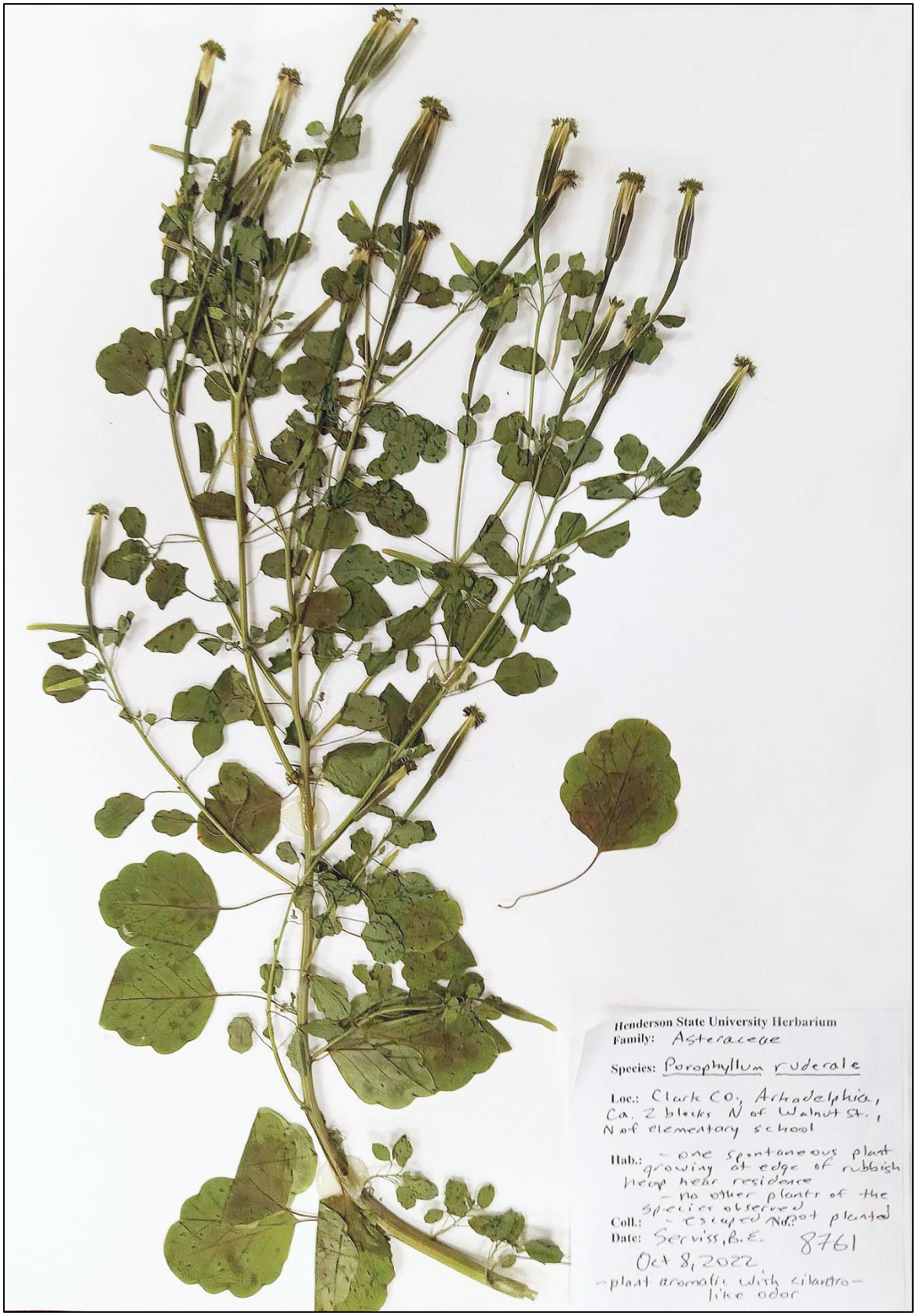

Figure 1. Specimen of spontaneous *Porophyllum ruderale* from Clark Co., Arkansas (2022).

Figure 2. A−B. *Porophyllum ruderale* — spontaneous plant in Clark County from 2022. A. Flowers. B. Stem and leaves. The plant initially was discovered in April as a sterile juvenile about one meter tall. Its origin is unknown but it presumably was disseminated to the site as a seed. No other plants of the species were observed. Flowering occurred September–October, with fruits present October−November. The plant eventually was killed by freezing temperatures in late autumn.

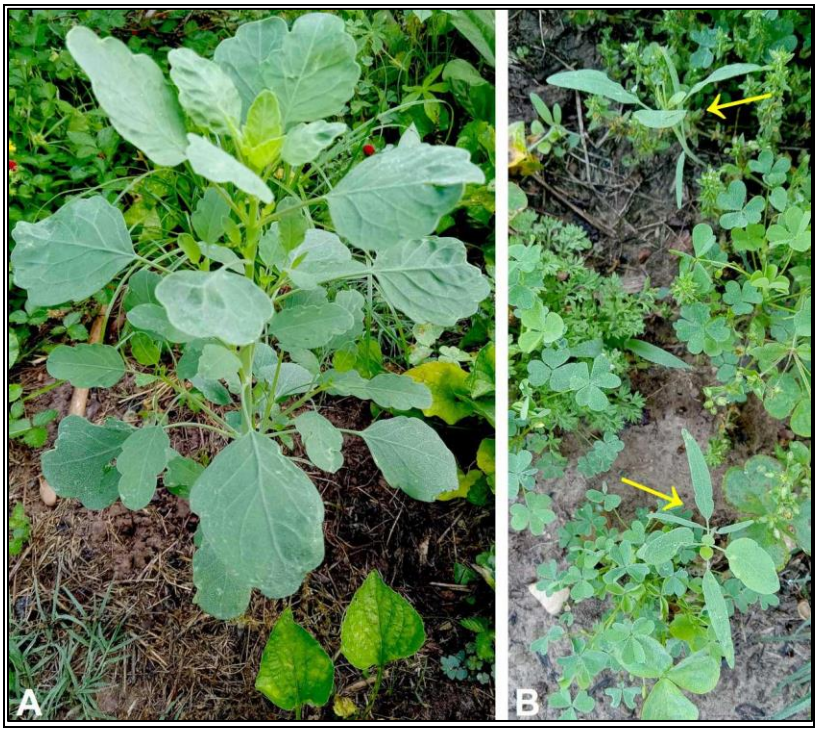

Figure 3. A−B. *Porophyllum ruderale* — young plants in Clark County from 2023 — seven seedling plants were present, presumably as a result of self-seeding by the 2022 plant. A. Larger, slightly older juvenile. B. Two smaller and younger, cotyledon-stage plants (indicated by the yellow arrows). No *P. ruderale* plants were observed away from the site.

Porophyllum ruderale is native to the Americas, including the southwestern USA, in Arizona, New Mexico, and Texas (Strother 2006). It also is escaped or naturalized in southern California, Hawaii, Europe, and Asia (Hrusa et al. 2002; Setyawati et al. 2015; Gómez-Bellver et al. 2016; Parker & Parsons 2016; Imada 2019; Calflora 2023). It is considered invasive in some areas of introduction, such as Hawaii and Indonesia (Setyawati et al. 2015; Plant Pono 2023). Arkansas material of this species is *P. ruderale* var. *macrocephalum* (DC) Cronq., following the 2006 FNA treatment by Strother.

Voucher specimen. **Arkansas.** Clark Co.: Arkadelphia, ca. 2 blocks N of Walnut St., N of Perritt Primary School, one spontaneous plant growing at perimeter of rubbish heap near property edge of residence, escaped, not planted, no other plants of the species observed, plant strongly aromatic with cilantro-like odor, 8 Oct 2022 *Serviss 8761* (HEND, ANHC).

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