


First record in British Columbia for the dandelion gall wasp, *Phanacis taraxaci* (Ashmead) (Hymenoptera: Cynipidae, Phanacidini)

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Introduction

There are two species of *Phanacis* (Förster) (Hymenoptera: Cynipidae, Phanacidini) known from North America: *Phanacis hypochoeridis* (Kieffer) and *Phanacis taraxaci* (Ashmead) (Nastasi & Deans, 2021; Nastasi et al., 2024). *Phanacis taraxaci* form galls on the petiole or midrib of their host plant, the introduced *Taraxacum officinale* G.H. Weber ex Wiggers (Asteraceae). Although *P. taraxaci* was described from North American specimens (Ashmead, 1897), the wasp is assumed to have been introduced to North America from Europe with its host (Weld, 1959). Despite the wide distribution of *T. officinale* in North America, the North American range of *P. taraxaci* is poorly described (Nastasi et al., 2024). The current note reports the first provincial record of *P. taraxaci* for British Columbia, Canada and briefly outlines the known range of the species in North America.

Results and Discussion

On July 16, 2023, I discovered a population of *P. taraxaci* in the lawn of the Golden Municipal Airport (51.2972°, -116.9828°) in Golden, British Columbia, Canada. *Phanacis taraxaci* form smooth, fusiform, single or multichambered galls on the abaxial surface of *T. officinale* leaves (Fig 1A) that are approximately 1 cm in length (Bagatto et al., 1996) but multiple galls may coalesce forming a mass that can be 5 cm long (Beutenmüller, 1910). Globally, *T. officinale* is a host plant to a wide variety of plant parasites including species of bacteria, fungi, nematodes, mites, and insects (Stewart-Wade et al., 2002), but no other cynipid galler is known from the native (Eady & Quinlan, 1963) or non-native range (Beutenmüller, 1910; Weld, 1959; Nastasi & Deans, 2021).

Upon discovery of the *P. taraxaci* population in Golden, I dissected an infested leaf and found in

each gall a small, yellow-white, oblong, motile larva (Fig 1B). The high activity and small size of the larvae suggests that they had not yet finished their development. I was unable to return to the site later in the season so I collected two highly infested leaves for rearing. I dried the galls in the open air in the field before placing them in a vial. I reared the galls in an unheated shed in Victoria, British Columbia, until spring 2024 but no adults emerged from the galls. I suspect that I collected the larvae too early in the season and that the larvae had not yet completed their development upon collection. I have deposited the two leaves in the Royal British Columbia Museum, Victoria, British Columbia.

The known range of *P. taraxaci* described in the literature includes six states in the USA: Illinois (Ashmead, 1897), Hawaii, Iowa, Minnesota, New York (Burks, 1979), and Pennsylvania (Nastasi & Deans, 2021); and four provinces in Canada: Ontario (Burks, 1979), Alberta, Saskatchewan (Paquette et al., 1993), and British Columbia (here). In recent years, the burgeoning community science platform iNaturalist.org has contributed more records of *P. taraxaci* in new states and provinces including Alaska, Colorado, Manitoba, Michigan, North Dakota, Oregon, Quebec, and Wisconsin (iNaturalist, 2024). The broad range of *T. officinale* in North America seems to be reflected in the few records of *P. taraxaci* in their invaded range. However, inconspicuous galls on a much-maligned invasive has likely led to the dearth of *P. taraxaci* records in North America. Community science platforms like iNaturalist are well poised to improve our understanding of the distribution of these gall wasps in North America.

Material

https://data.canadensys.net/micropublications/resource?r=specimen_31

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Fig 1. A) Coalesced midrib gall of *Phanacis taraxaci* on the leaf of *Taraxacum officinale* at Golden Municipal Airport, British Columbia, Canada. B) Motile *Phanacis taraxaci* larva in a dissected gall.