

# *Jamesiella scotica* new to North America from USA, Alaska

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**Abstract:** *Jamesiella scotica* is reported new to North America from Kenai Fjords National Park in Alaska. It was found on live and moribund leaves of the bryophyte *Paraleucobryum longifolium* on sea-shore rocks just above high tide line.

**Keywords:** lichen, Kenai Fjords National Park, new species, sea shore

## INTRODUCTION

During field work in Kenai Fjords National Park, SW of Anchorage in Alaska, U.S.A, in July 2015, I collected a specimen of *Massalongia carnosa* (Dicks.) Körb. Later, when I was processing the specimen, I realized that the *Massalongia* was associated with a specimen of *Jamesiella scotica* (P. James) Lücking, Sérus. & Vězda. As this species appears to be new to North America (see Esslinger 2015) it is further commented on below.

*Jamesiella* Lücking, Sérus. & Vězda is a recently described genus of four species (Lücking et al. 2005, 2006). Most of the species were previously assigned to *Gyalideopsis* Vězda (James 1975, Vězda & Hafellner 1988). *Jamesiella* differs from *Gyalideopsis* by the isidiiform hyphophores which have internal conidia and function as diaspores (Lücking et al. 2005, 2009). A key to the species of *Jamesiella* is provided by Lücking et al. (2006, page 150). Esslinger (2015) in The North American checklist for lichens, lists one species, *J. anastomosans* (P. James & Vězda) Lücking, Sérus. & Vězda. *Jamesiella anastomosans* and *J. scotica* are easy to separate. *Jamesiella anastomosans* has spine-like, often almost colourless and translucent hyphophores, usually 8-spored asci and is corticolous, whereas *J. scotica* has pale brown to reddish brown, suglose (when young) to peg-like and apically flattened hyphophores, 2-spored asci and is muscicolous. For complete descriptions, see James (1975) and Lücking et al. (2005, 2009).

## RESULTS

The material of *Jamesiella scotica* from Alaska (Fig. 1) comprises one sterile specimen with numerous hyphophores on moribund (mainly)

and live bryophyte leaves of *Paraleucobryum longifolium* (Hedw.) Loeske on a thin layer of humus. It was collected from the upper, flat part of a low boulder on sea-shore granitic rock just between the upper tide line and a fringe of *Alnus viridis*. Juvenile hyphophores were more or less colourless and translucent, whereas well-developed ones were reddish brown and up to 0.12 mm wide and tall. The inner part supported some scattered and clustered algal cells. Close associates of lichens were *Massalongia carnosa*, *Cladonia* sp. (squamules), and *Arthrorhaphis aeruginosa* R. Sant. & Tønsberg (sparse).

According to Lücking et al. (2009), *Jamesiella scotica* is a rare species occurring on decomposing liverworts and mosses on base rich mountain rock and soil. The specimen from Alaska grew on granitic rock in maritime situation near the sea-level. It might be that spray from the sea was compensating for the lack of base rich rock at the site and/or that the substrate specificity is weaker than previously supposed.

*Jamesiella scotica* was previously regarded as endemic to the British Isles (Lücking et al. 2009). It is here reported new to North America. With this new locality, the species shows a northwestern Europe to northwestern North America disjunct distribution.

Specimen examined. U.S.A., Alaska, Kenai Peninsula Co., Kenai Fjords National Park, off Aialik Bay, NE end of Coleman Bay, 59.88069°N 149.61673°W (WGS84), alt. 1–5 m, overgrowing moribund (mainly) and live leaves of *Paraleucobryum longifolium* on sea-shore granitic boulder just above upper tide line, 9 July 2015, Tønsberg 45475 (BG).

Specimen examined for comparison. England, Cumbria, above Brown Cove, Helvellyn, N. facing cliffs, 1991, O.L. Gilbert (BM 552713).



**Fig. 1.** *Jamesiella scotica*, Tønsberg 45475, from Alaska (photo E. Timdal 2016.). Scale: 1 mm.

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