

***Peziza alaskana* Cash**

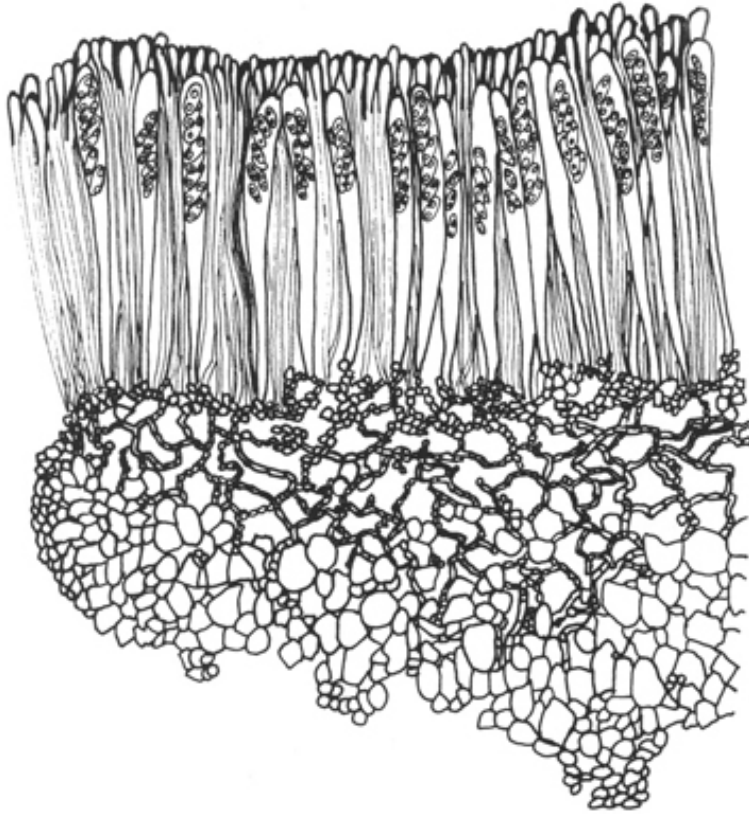


TS 68/89, Norway: Oppland, Dovre, Tverrådalen, 950 m, on sandy, calcareous soil in expulsion slope of the river Tverråi, 6 August 1989. x: 2.2. Photo: KMJ.

Apothecia sessile, cupulate to discoid, 0.3-1.8 cm in diam., with a prominent and commonly incurved margin. **Hymenium** deep purplish black, outside concolorous or more dark violaceous, delicately, granularly pubescent.

Ecology and Distribution: *P. alaskana* is a typical representative of arctic-alpine sedimentation flats on calcareous soils, on river banks, estuaries and along inland lakes. *P. alaskana* has been repeatedly collected in arctic-alpine localities in Norway (T.S.), Greenland (H. Dissing, pers comm.), and in the Canadian (Huhtinen, 1985, ? as *P. limnaea*) and Alaskan arctic; it is so far unknown from the European alps.

Microscopic features: **Asci** cylindric, 270-320 x 14-17 μm , 8-spored, wall J+ in upper part of ascus. **Ascospores** obliquely uniseriate, ellipsoid with slightly pointed ends, subhyaline, mass spore discharge light brown in colour, 19.0-22.2 x 8.5-10.2 μm , with two internal guttules, sculptured, ornamentation consisting of short ridges and irregular warts, 0.4-1.4 μm broad, to 1.0 μm high, ridges partly anastomosing forming irregular meshes of reticulation (plate I C). **Paraphyses** straight, multiseptate, clavately enlarged to 7-9 μm at the tips, with purplish black pigments and exudates, clusters of paraphysal apices embedded in purplish brown matrix forming a 'pseudomazaedium'. **Subhymenium** indistinct, mainly composed of densely packed, short-segmented, inflated hyphae, 6-16



Peziza alaskana, TS 68/89. Section of fruit body, x 150.

μm broad. **Excipulum** principally three-layered, without sharp demarcations between zones; innermost narrow layer composed of interwoven, septate hyphae with wide intercellular spaces, gradually extending into a thick and major proportion of the excipulum composed of large, globose to angular cells, 30-70 μm in diam., interspersed with segmented hyphae running in various directions, hyphae 7-12 μm broad, gradually entering into an ectal layer, ca. 100 μm wide, of smaller, densely packed angular cells, 6-20 μm in diam., the outermost of which have thickened, coloured walls; on outer surface some densely packed rows of vertically arranged prismatic cells, constituting the microanatomical features of the covering granula of the receptacle.

Notes: The dark purplish black, shallow-cupulate fruitbodies, and the microanatomical features of agglutinated paraphyses and ellipsoid, slightly pointed ascospores with a sculpturing of uneven-sized warts and short, partly anastomosing ridges, characterize *P. alaskana*. The species is often confused with *P. limnaea*, which may occupy similar habitats along lakes and rivers in the lowlands.

Nomenclature:

Original description published: J. Washington Acad. Sci. 44 (2): 44. 1954.

