

**Zeitschrift:** Mycologia Helvetica  
**Herausgeber:** Swiss Mycological Society  
**Band:** 4 (1990-1991)  
**Heft:** 2

**Artikel:** Wood-inhabiting resupinate fungi from southern Switzerland :  
Gloeodontia columbiensis Burt ex Burdsall & Nakasone  
**Autor:** Martini, Elia  
**DOI:** <https://doi.org/10.5169/seals-1036492>

### **Nutzungsbedingungen**

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

### **Conditions d'utilisation**

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

### **Terms of use**

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

**Download PDF:** 17.04.2026

**ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>**

## Wood-Inhabiting Resupinate Fungi from Southern Switzerland

### 1. *Gloeodontia columbiensis* Burt ex Burdsall & Nakasone

Elia Martini  
CH-6676 Bignasco

**Summary.** *Gloeodontia columbiensis* (Basidiomycetes, Auriscalpiaceae) is reported for the first time in Europe. A description and illustration, based on collections made in Ticino, are provided.

**Riassunto.** *Gloeodontia columbiensis* (Basidiomycetes, Auriscalpiaceae) viene descritta e illustrata sulla base di raccolte effettuate in Ticino. Si tratta della prima segnalazione per l'Europa.

**Zusammenfassung:** Das Vorkommen von *Gloeodontia columbiensis* (Basidiomycetes, Auriscalpiaceae) wird erstmals für Europa nachgewiesen. Ein Fund aus dem Tessin wird beschrieben und illustriert.

**Résumé:** *Gloeodontia columbiensis* (Basidiomycètes, Auriscalpiacées) a été trouvé pour la première fois en Europe. Une collection faite au Tessin est décrite et illustrée.

*Gloeodontia* Boidin is a small corticioid genus belonging to the Auriscalpiaceae. It was introduced for *Irpex discolor* Berk. & Curt., a species with dimitic hyphal system, thickwalled and encrusted cystidia, gloeocystidia staining blackish in sulphobenzaldehyde, and amyloid spores. The genus was later amended to include *G. columbiensis* Burt ex Burdsall & Lombard, a monomitic species otherwise sharing the same characters. Recently the circumscription of the genus has become somewhat vague because of the inclusion of poorly known species such as *G. americana* Rajchenberg from Brazil, which has no skeletocystidia, and *G. pyramidata* (Berk. & Curt.) Hjortstam from Cuba, a disputed species on account of the uncertain presence of gloeocystidia and structure of the hyphal system. No species of *Gloeodontia* were known to occur in Europe up to now.

*Gloeodontia columbiensis* is present in the northern United States and Canada where it has been found on dead wood of *Acer*, *Alnus*, *Populus*, *Pinus* and *Salix* (Burdsall & Lombard 1976; Lindsey & Gilbertson 1978). Outside this area, it has been reported only by Hallenberg (1978 & 1981), who collected it in North Iran on a fallen branch and a twig from deciduous trees.

The three collections presented here were made in Ticino, southern Switzerland, in two localities 2 km apart: one site in a dry and sunny *Fagus*

forest and the others in a humid wood dominated by *Tilia cordata*. The very different habitat suggests that *G. columbiensis* may not be too infrequent in European subalpine deciduous woods.

*Gloeodontia columbiensis* Burt ex Burdsall & Lombard

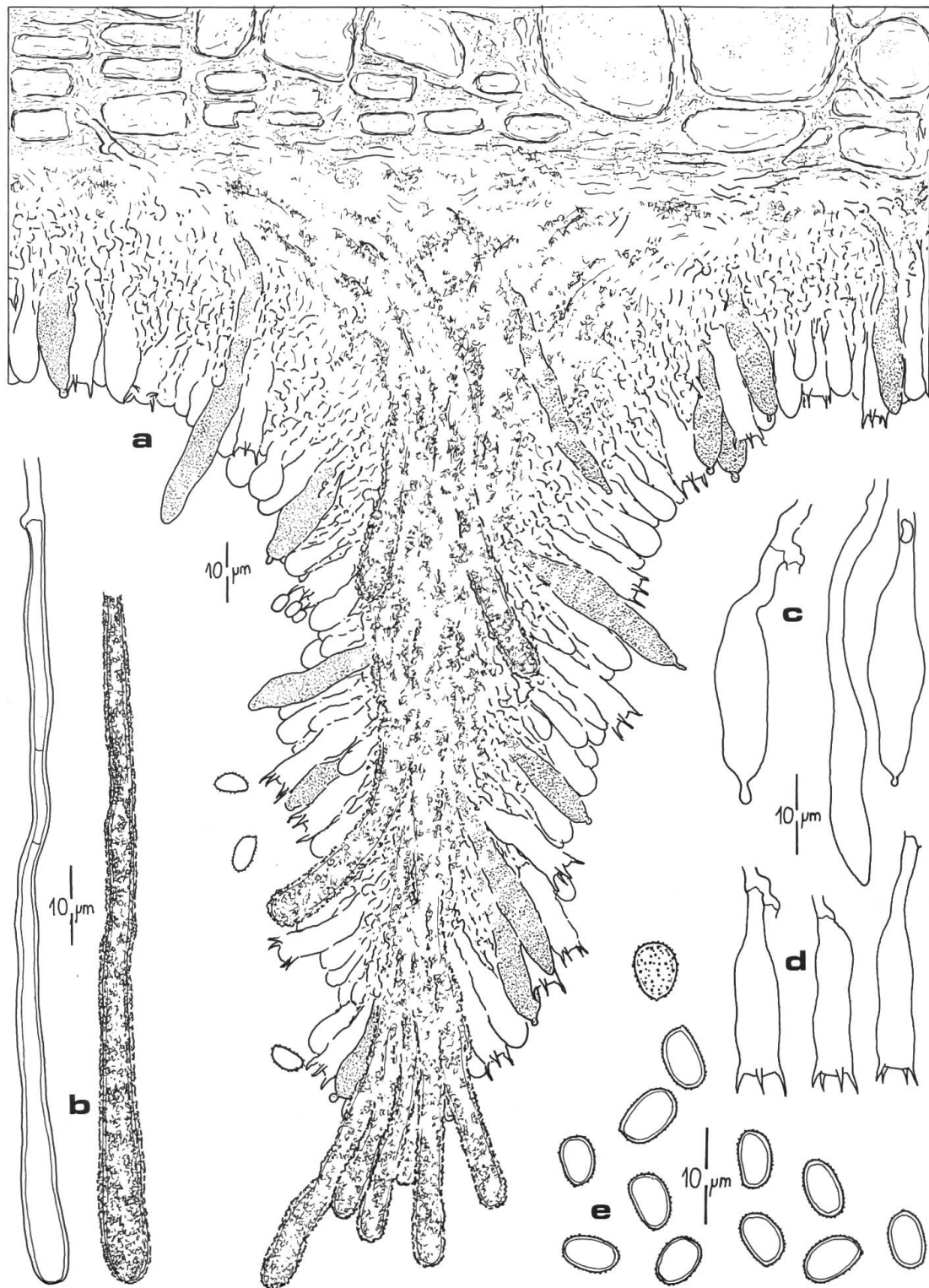
Mem. NY Bot. Gard. 1976, 28: 17.

**Basidiome** resupinate, effuse, closely adnate, subceraceous to submembranous, crustose on drying; **hymenial surface** white to pale yellowish (Munsell 10 YR 8/3, 8/6), initially porulose, discontinuous with sparse small tubercles visible with a lens, becoming continuous and distinctly odontoid with small crowded conical teeth, up to 1 mm long, sometimes fimbriate at the apex by the protruding cystidia. **Subiculum** very thin, up to 100  $\mu\text{m}$ . **Margin** indistinct or gradually thinning out.

**Hyphal system** monomitic, all hyphae with clamps at the septa. **Subhymenial hyphae** hyaline, thinwalled, 1.5-3.2  $\mu\text{m}$ , short celled. **Tramal hyphae** hyaline, with thickening walls, strongly intertwined and agglutinated, rather indistinct, 2-4  $\mu\text{m}$  in diam. **Subicular hyphae** few, hyaline to pale yellowish, thickwalled, regular, with more spaced septa, 3-4  $\mu\text{m}$  wide. **Cystidia** cylindrical, thickwalled, strongly encrusted, somewhat fasciculate in the core of aculei and protruding through the apex, irregularly spreading out laterally, variable in length, up to 9  $\mu\text{m}$  in diam. **Gloeocystidia** numerous, reacting positively with sulphobenzaldehyde, thinwalled, ventricose, vesicular, cylindrical, often with a small, rounded, apical appendage, 20-40(-70)  $\times$  5-8  $\mu\text{m}$ . **Basidia** clavate, often with a median constriction and somewhat stalked, 16-32  $\times$  5-6  $\mu\text{m}$ , with a clamp at the basal septum and bearing four sterigmata up to 4(-5)  $\mu\text{m}$  long. **Spores** ellipsoid, finely asperulate, smooth or nearly so in KOH, thickwalled, hyaline or very pale yellowish, strongly amyloid, acyanophilous, (5-) 5.5-6.0-6.8 (-7.2)  $\times$  3.8-4.3-4.8  $\mu\text{m}$ , Q= 1.38-1.44 (measured in Cotton Blue), with a small lateral apiculus.

**Specimens examined.** Switzerland, Ticino, Valle Bavona, Mondada, 540 m above sea level, on fallen, decorticated and decayed branch of *Tilia cordata*, 23. X. 1987 [EM-1511]; Mondada, 600 m, on decorticated, moist and decayed branch of angiosperm wood, 3. III. 1990 [EM-2480]; Val Serenello, 1000 m, on a more or less decorticated, dry branch of *Fagus sylvatica*, 9. VII. 1988 [EM-18851].

**Remarks.** The species is easily recognised by the presence of peculiar characters; thickwalled and encrusted cystidia, monomitic hyphal system, sulphopositive gloeocystidia and amyloid, slightly thickwalled and ornamented spores. *Gloeodontia discolor*, the type species of *Gloeodontia*, is readily separated by a dimittic hyphal system and smaller spores measuring 3.5-4.5(-5.5)  $\times$  2.5-3(-3.5)  $\mu\text{m}$  (Burdsall & Lombard 1976). Worthy of mention is the loss of spore ornamentation when treated with KOH and the presence of



**Figure 1:** *Gloeodontia columbiensis* [coll. EM-1511]. a) vertical section through basidiome, b) thickwalled and encrusted cystidia, c) gloeocystidia, d) basidia, e) spores.

skeletocystidia that can superficially lead to species of the genus *Steccherinum*, like the rare *Steccherinum litschaueri* which has a reduced dimitic hyphal system; yet this genus has neither gloeocystidia nor amyloid spores.

#### Bibliography

Burdsall H. H. Jr. & Lombard, F. F. (1976): The genus *Gloeodontia* in North America. Mem. N.Y. Bot. Gard. 28: 16-31.

Hallenberg, N. (1978): Wood-fungi (Corticaceae, Coniophoraceae, Lachnocladiaceae, Thelephoraceae) in N. Iran. Iran J. Plant Pathol. 14: 38-87.

Hallenberg, N. (1981): Synopsis of wood-inhabiting Aphyllophorales (Basidiomycetes) and Heterobasidiomycetes from N. Iran. Mycotaxon 12: 473-502.

Lindsey, J. P. & Gilbertson, R. L. (1978): Basidiomycetes that decay aspen in North America. J. Cramer, Vaduz.

Munsell Color (1975): Munsell soil color charts. Munsell Color, Baltimore.