

**TIPIFICATION OF SOME ORTHOTRICHACEOUS NAMES PUBLISHED  
BY G. VENTURI (ORTHOTRICHACEAE: BRYOPSIDA)**

Dale H. Vitt<sup>1</sup> and Pier-Luigi Nimis<sup>2</sup>

*Summary*

Gustavo Venturi (1830–1898) wrote 20 articles on the taxonomy of the moss genus *Orthotrichum*. In these papers, as well as in contributions of new taxa to papers by prominent bryologists of his era, he described 19 species, 3 subspecies, and 48 varieties. Included in these new taxa, were plants from Australasia, North America, the Himalayas, the Caucasus, and Europe. His herbarium at Trento (TR) has not been available for study since his death. This paper presents typification of the names of the most important of Venturi's taxa, including 18 species, one subspecies and seven varieties.

Gustavo Venturi was born in Rovereto (Province of Trento) the 4th of February 1830. After receiving a degree in law, he moved to Trento where he became an attorney, and where he died in 1898. Bryology was his principal hobby, and according to Bonomi (1930), he was much better as a bryologist than as a lawyer. He was in contact with the important bryologists of his time, with duplicates of material collected by G. De Notaris, K. G. Limpricht, C. B. Massalongo, and C. F. Warnstorf present in his herbarium. Notes on Venturi's publications are present in articles by Ambrosi (1984) and Bonomi (1930).

Between 1871 and 1899, Gustavo Venturi published some 20 articles on the taxonomy of the genus *Orthotrichum*. Additionally, he contributed descriptions of new taxa to six articles by Brotherus, Geheeb, Bottini, and Roell. In 1873, he wrote a "Révision des *Orthotrichum*" (Piccioli, 1932) in the journal *Hedwigia*, which discussed species of the genus found in Europe (Venturi, 1873). Following this in 1887, Venturi published a monograph of the genus in Europe, this appearing in Husnot's *Muscologia Gallica* (1884–1890).

In the course of writing these articles, Venturi described 19 species, 3 subspecies, and 48 varieties. Included were seven North American, four Australasian, and seven Eurasian species. Venturi published numerous "var. *typicum*" names for the type variety. These are invalidly published, however more problematic is the use of "var. *commune*" for ten varieties in cases where additional varieties were described. Nine of these are first described in 1887 (Venturi in Husnot), with only a general description of ecology and distribution. No specimens were cited. These names in most cases, represent the type variety as is suggested by Venturi's comment under *O. rogeri* Brid. var. *commune* "La confrontation des échantillons authentiques de l'*O. rogeri* de Bridel et de Schimper."

In 1932, Piccioli published a thesis on the European species of *Orthotrichum*. In this work, done in Neuchâtel, Switzerland, she treated Venturi's European taxa in some detail, however she does not mention seeing specimens from Venturi's herbarium. She seemingly only examined specimens (including some named by Venturi) from the Levier herbarium (FI), and those of Bottini (presently PI) and Fiori (presently FT). During my study of North American Orthotrichaceae (Vitt, 1973), I was

<sup>1</sup> Department of Botany, The University of Alberta, Edmonton, Alberta T6G 2E9, Canada.

<sup>2</sup> Dipartimento di Biologia, Università de Trieste, I 34100 Trieste, Italy.

able only to study a few duplicate specimens of Venturi's in FH and NY. Lewinsky (1984) cited supposed type material she located in H and BM for Venturi's Australasian names.

The Herbarium Venturi (Bryotheca Venturi) was donated by Venturi to the town of Trento, and became the property of the Museo Tridentino di Scienze Naturali (Trento) in 1922. It contains 4600 samples, preserved in envelopes and ordered systematically (alphabetically within genera) in 50 packs; it is presently stored in 84 wooden boxes. The state of conservation is very good, and it seems that most of the packs have not been opened for a very long time (perhaps since the last time Venturi did). Apart from Venturi's publications, the herbarium has never been the object of any study, and generally material has not been available for loan.

For the past few years, the second author has been investigating the locality of De Notaris' lichen herbarium, and during this time he has had access to the herbarium in Trento, Italy. Venturi's herbarium, in storage in TR, was examined and specimens present in the herbarium sent to the first author.

Based on these specimens, we present typification of 18 species, one subspecies, and seven varieties described by Venturi. At this time we have not attempted to typify the 38 European varietal names (including ten var. *commune*), as neither of us is familiar with the intraspecific variation of *Orthotrichum* on the European continent. As well, we have not dealt with a few miscellaneous names due to difficulties in finding specimens (one species (*O. firmum*), two subspecies, and three varieties).

The present-day condition of Venturi's specimens is excellent. His curatorial methods were exact, with his new names written clearly on the packets. His understanding of Australasian geography was not especially clear. For example, in the protologue of *O. pseudopumilum*, the phrase is written "proximité de Queenstown," Venturi (1896), whereas in his herbarium three specimens are present—"N. 17. Tasmania Pine Hill on boulders of Podocarps receuilli M. Waymouth 1889, N. 19. Queensland botanical garden of Dundeeon [sic] on stems of trees 1889 leg. Waimouth [sic], and N. 35. on rocks Pinehill 1887 Waymouth leg. V. F. Brotherus omnia 1895." According to Lewinsky (1984), this species is synonymous with *O. cyatheforme*—a New Zealand endemic. It is doubtful that W. A. Weymouth collected in New Zealand, he having lived and collected his entire life in Tasmania. The Pine Hill specimens were in all probability collected by Bell near Dunedin, New Zealand. Obviously, Venturi was confused on the place names and their localities in Australasia, as well as perhaps confusing collectors (he consistently mis-spelled Weymouth as either Waimouth or Waymouth). In any case, it appears clear that the type locality is in New Zealand, not Australia or Tasmania. Besides these geographical problems, location of suitable specimens in Venturi's herbarium suitable as type specimens is straight forward.

Taxonomically, Vitt (1973) considered only *O. praemorsum* to be acceptable among the North American species described by Venturi. Lewinsky (1984) placed all four of Venturi's Australasian names in synonymy with earlier names. All of these taxonomic opinions were made based on examination of isotypes, syntypes, or presumed type material. Lectotypifications presented here are in agreement with Vitt's (1973) taxonomy. Lewinsky (in litt.) has examined the type material and her annotations of the lectotypes (or holotypes) is in agreement with the taxonomy she presented in 1984 based on other material.

The genus *Orthotrichum* has not been revised in recent years in eastern Europe and Asia. Thus we feel hesitant to taxonomically review the names Venturi described from the Caucasus and from Kashmir. However, typification of these names will make the taxonomic task simpler when the genus is revised in these areas.

### Typification of Venturi's Orthotricha

#### Australasian Names

*Orthotrichum lateciliatum* Venturi, Oefv. Finsk. Vet. Soc. Foerh. 35: 44. 1893. Type: "Tasmania, ad arbores pr. New Town Rivulet (W. A. Weymouth n. 895) nec non in Mt. Wellington, St. Crispin's (n. 897)." Lectotype: 895, Syntype: 897 TR-Venturi!

= *Orthotrichum tasmanicum* Hook. f. et Wils. *vide* Lewinsky (1984) p. 405.

*Orthotrichum praeperistomatum* Venturi, Rev. Bryol. 23: 67. 1896. Type: "provenait de la Tasmanie recueilli par le soin de M. Waymouth" (sent by Brotherus). Holotype: "Tasmania Mount Affred on rocks. Waymouth lg. Brotherus." TR-Venturi!

= *Orthotrichum rupestre* Schleich. ex Schwaegr. *vide* Lewinsky (1984) p. 398.

*Orthotrichum pseudopumilum* Venturi, Rev. Bryol. 23: 67. 1896. Type: “recueillis sur la tige des arbres à proximité de Queenstown.” Lectotype: No.19 “Queensland botanical garden of Dundee [sic] on stems of trees 8br 1889, legit Waimouth [sic]”. TR-Venturi!  
=*Orthotrichum cyatheforme* R. Br. *vide* Lewinsky (1984) p. 426.

*Orthotrichum rupestriforme* Venturi, Rev. Bryol. 23: 67. 1896. Type: “provenait de la Tasmanie recueilli par le soin de M. Waymouth” (sent by Brotherus). Holotype: “Queenstown, on dry exposed rocks. Waymouth [sic] leg. Brotherus N. 5.” TR-Venturi!  
=*Orthotrichum rupestre* Schleich. ex Schwaegr. *vide* Lewinsky (1984) p. 398.

#### North American Names

*Orthotrichum californicum* Venturi, Hedwigia 12: 6. 1873. Type: “Formam americanam ex California [sic] habeo.” Lectotype: TR-Venturi!  
=*Orthotrichum rupestre* Schleich. ex Schwaegr.

*Orthotrichum euryphyllum* Venturi, Bot. Centralbl. 44: 417. 1890. Type: “Cascaden: Ellensburgh (Washington) ad lapides rivulorum prope Thorp.” Holotype: TR-Venturi!  
=*Orthotrichum rivulare* Turn.

*Orthotrichum lyellii* ssp. *strictum* Venturi, Bot. Centralbl. 44: 419. 1890. Type: “Cascaden: Enumclaw (Washington).” Holotype: TR-Venturi!  
=*Orthotrichum lyellii* Hook. et Tayl. subsp. *lyellii*.

*Orthotrichum praemorsum* Venturi, Bot. Centralbl. 44: 418. 1890. Type: “Rocky Mountains: Yellowstone National-Park (Wyoming).” Holotype: TR-Venturi! Taxonomically, an endemic western North American species (Vitt, 1973).

*Orthotrichum rhabdophorum* Venturi, Bot. Centralbl. 44: 418. 1890. Type: “Cascaden: Thorp prope Ellensburgh (Washington).” Holotype: TR-Venturi!  
=*Orthotrichum pylaisii* Brid.

*Orthotrichum rivulare* var. *dentatum* Venturi, Rev. Bryol. 23: 60. 1896. Type: “. . . Miss Blackler, dans les environs de la ville d'Olympia, en Oregon, en 1880, . . .” Lectotype: “9. *Orthotrichum rivulare* var. *serratum* Venturi in silvis prope Olympia (Oregon) estate 1880—Miss Blackler ex herb Levier.” TR-Venturi!  
=*Orthotrichum rivulare* Turn. var. *rivulare*.

*Orthotrichum roellii* Venturi, Bot. Centralbl. 44: 390. 1890. Type: “Thorp prope Ellensburgh (Washington) ad rupes.” Lectotype: TR-Venturi!  
=*Orthotrichum laevigatum* Zett. fo. *macounii* (Aust.) Lawt. et Vitt.

*Orthotrichum schlotthaueri* Venturi, Bot. Centralbl. 44: 390. 1890. Type: “Rocky Mountains: Garrison (Montana).” Lectotype: TR-Venturi!  
=*Orthotrichum laevigatum* Zett. fo. *macounii* (Aust.) Lawt. et Vitt.

*Orthotrichum speciosum* var. *roellii* Venturi, Bot. Centralbl. 44: 419. 1890. Type: none cited, Holotype: “Northwestamerica. Argyle Chicago, Ill. Röhl leg. '89” TR-Venturi!  
=*Orthotrichum rupestre* Schleich. ex Schwaegr.

=*Orthotrichum stenocarpum* Venturi, Bot. Centralbl. 44: 389. 1890. Type: “Cascaden: Easton (Washington).” Lectotype: TR-Venturi!  
=*Orthotrichum laevigatum* Zett. fo. *laevigatum*.

#### Asian and European Names

*Orthotrichum baldaccii* Bott. et Venturi, Hedwigia 31: 136. 1892. Type: “In Spalten von Kalkfelsen unter dem Gipfel des Berges Kom Kucki (2300 M.) . . . Baldacci (Bologna).” Holotype: TR-Venturi!

- Orthotrichum caucasicum* Venturi in Husn., Musc. Gall. 176. 1887. Type: none cited, Lectotype: "1. Caucaso Vladikanko 1881-16/VIII, V. F. Brotherus leg et m.—'83." TR-Venturi!
- Orthotrichum duthiei* Venturi, Rev. Bryol. 23: 27. 1896. Type: "... je crais que leur diversification dans une forme d'*Orthotrichum* recueillie par M. Duthie, à Gulmary, dans le Cachemire sur les rochers (8–9000 ped. alt.) . . ." Holotype: "Kashmir, Gulmarg, 28/5/1892 leg. Duthie, com. Brotherus (11241)." TR-Venturi!
- Orthotrichum nudum* var. *rudolphianum* Venturi in Husn., Musc. Gall. 161. 1887. Type: "On la trouve dans l'Europe centrale et occidentale, moins frequente que la var précédente." Lectotype: "Dolomifelsen bei Gerolstein in der Eifel Rheinpreussen. Winter leg. 75, Geheeb Nr. 78": TR-Venturi!
- Orthotrichum pallens* var. *parvum* Venturi, Hedwigia 12: 21. 1873. Type: "In arboribus campestribus vallis Rabbi. Ex descriptione cl. De Notaris haec varietas cum Orth. microcarpo congui posse suspicor." Holotype: TR-Venturi!
- Orthotrichum rupestre* var. *ovatum* Venturi in Husn., Musc. Gall. 155. 1887 (Orth. *ovatum* mihi olim). Type: Les exemplaires de la region alpine de Caucase, communiquées par M. Brotherus, ont la forme de coussinets denses et le pedicelle de la capsule est plus ou moins court. Un exemplaire d'Abyssinie a les capsules plus étroites et le pédicelle plus allongé. Enfin, l'exemplaire de la Carinthie (près de Heiligenblut) n'a presque pas de pédicelle. C'est une forme très rare de la région alpine. Lectotype "10. *Orthotrichum ovatum* mihi Abyssiniae. St. du Mt. Dedschem 14700' 1883. W. Schimper ex herb. Bescherelle"; Syntypes: TR-Venturi!
- Orthotrichum sardagnanum* Venturi, Rev. Bryol. 6: 56. 1879. Type: "In rupibus subalpinis dolomitis montis Morgella prope Tridentum mense Juli 1878 reperi." Lectotype: "Margella, Juglio, 1878" TR-Venturi!
- Orthotrichum urnigerum* var. *perforatum* Venturi in Husn., Musc. Gall. 163. 1887. Type: "On l'a trouvée dans plusieurs endroits des Alpes du Tyrol, et dans la région alpine des Alpes du Caucase (communiquée par M. Brotherus)." Lectotype: "Ex Caucaso Abartuinan 9/VI-81 Brotherus legit" TR-Venturi!
- Orthotrichum venturii* var. *himalajanum* Venturi, Rev. Bryol. 22: 53. 1895. Type: "du Cachemire dans la chaine de l'Hymalaya, recueillies à une hauteur de 8 à 12 mille pieds anglais." . . . envoyé. Brotherus. Holotype: "Cashmire Duthie leg. Brotherus 1895" (Kashmir, Liddarwat 9–10000p. 11/8/1893 leg. J. F. Duthie) TR-Venturi!
- Orthotrichum venustum* Venturi, Act. Soc. Sc. Fenn. 24(2): 18. 1899. Type: "Kashmir: prope Gulmarg 8–9 000' (n. 11 404)". Holotype: (leg. Duthie 8/6/1892, com. Brotherus 11404) TR-Venturi!
- Orthotrichum virens* Venturi, Act. Soc. Sc. Fenn. 24(2): 18. 1898. Type: "Kashmir: in valle Kargeh supra Tilail 10–11 000' ad truncum *Salicis* (n. 14 235)." Holotype: TR-Venturi!
- Orthotrichum vladikavkanum* Venturi in Husn., Musc. Gall. 167. 1887. Type: "(Brotherus, Enum. musci Caucasi, 1886)." Holotype: "Caucaso, Vladikavka, 16 Jun. V. F. Brotherus lg. 81 et 83." TR-Venturi!

#### Acknowledgments

We wish to thank the Natural Sciences and Engineering Council of Canada grant number A-6390 to the first author in support of this research.

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