

## A VALID DESCRIPTION OF *ORTHOTRICHUM MICROCARPUM* (ORTHOTRICHACEAE)

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*Orthotrichum microcarpum* De Not. is a rare epiphytic Mediterranean species endemic to Europe which is placed on the Red List of endangered bryophytes in the category of threatened taxa that present taxonomic problems (Schumacker & Martiny 1995). Its exact distribution is not well known but according to the literature data its range covers southern Europe, including Switzerland (Amann 1918; Online-Atlas der Schweizer Moose: [http://www.nism.uzh.ch/map/map\\_de.php](http://www.nism.uzh.ch/map/map_de.php)), Italy (Cortini Pedrotti 2001; Al-effi *et al.* 2008), Slovenia, Croatia and Turkey (Sabovljević *et al.* 2008; Kürschner & Frey 2011), and Georgia (Chikovani & Svanidze 2004). The records of the species from other European countries are incorrect, including Germany (Meinunger & Schröder 2007), Norway and Sweden (Nyholm 1998) and Poland (Plášek & Sawicki 2009). As well, reports of the species from outside Europe are erroneous, including North America (Vitt 1973) and Siberia, the latter being based upon a false taxonomic interpretation of *Dorcadiion pallidum* Lindb. & Arnell (Podpěra 1954).

According to the compilers of *Index Muscorum* (Wijk *et al.* 1964), *Orthotrichum microcarpum* was described by De Notaris (1869) in his well known moss Flora of Italy, and this information has been adopted by the authoritative database TROPICOS (<http://www.tropicos.org/Name/35173580>). That is not correct, however, because *O. microcarpum* was actually validly published six years earlier and its diagnosis appeared on the label of the specimen distributed

in fascicle 19 of *Erbario Crittogramico Italiano* as No. 915 in January 1863 (Sayre 1969) (Fig. 1).

This exsiccata is normally quoted without editor, but Cuccuini (1997) showed that its first series, consisting of 30 fascicles distributed in 1858–1867, and 13 fascicles of the second series distributed in 1868–1872, were edited by G. De Notaris and F. Baglietto. After the death of G. De

### Erbar. Crittogram. Ital.

#### 915. ORTHOTRICHUM MICROCARPUM

DNtrs Musc. ital. miss. — Pulvinatum, dichotome ramosum. Folii linear-ligulata, obtusa vel subacuta, carinata, margine revoluta, nervo sub apice desinente exarata, acute papilloso-scabrida. Capsula e pedunculo ochreato, vaginula glabra vix longiore, vix emergens, parva, elliptica, vel subinde, a basi nonnihil angustata, obovata, sporangio brevi dimidiata capsulae longitudinem vix excedente instructa, octo-striata, leptoderma, translucida, in siccio valde contraeta, urceolata, emergens. Operculum conoideo-attenuatum, obtususculum. Calyptra conico-campanulata, glabra, striata, leniter fuscescens.

Peristomii dentes octo, ad medium demum bifidi. Cilia octo, tenuia, dentibus breviora. Sporae obsolete muricatae. Flores masculi gemmacei, oligandri, eparaphysati, ad foliorum comalium axillas. — *O. pumilo* (*Bryol. europ. III. Orth. 44. tab. V.*) — (*O. fallax* Schimp. *Syn. muscor. europ. 264.*) quodantenus simile, distinguitur capsula dimidio fere minore, collo sporangium aequante instructa, sporis duplo majoribus.

Sui gelsi nei campi di Val Intrasca, al Lago Maggiore.  
Aprile 1862. DE NOTARIS.

Fig. 1. The label of the original specimen of *Orthotrichum microcarpum* De Not. from WRSL.

Notaris in 1877 the *Erbario Crittogramico Italiano* was re-established by the algologist F. Ardissoni, a disciple of G. De Notaris, and by November 1885 the remaining 17 fascicles of the second series were completed.

De Notaris (in De Notaris & Baglietto 1863) described *Orthotrichum microcarpum* on the basis of a single specimen he collected personally in April 1862 near Lago Maggiore in the Trentino-Alte Adige region in northern Italy. The description of the species appeared on the label of specimen No. 915 in the *Erbario Crittogramico Italiano* exsiccata (Fig. 1), and according to the current Code (McNeill *et al.* 2006) this constitutes a valid description of this species. Later, De Notaris (1869) redescribed *O. microcarpum*, but still on the basis of the same specimen. Thus the correct bibliographic data for this species are as follows:

### ***Orthotrichum microcarpum* De Not.**

in De Not. & Bagl., Erb. Crittog. Ital. **19**: No. 915. 1863 (I).

TYPE CITATION: Sui gelsi nei campi di Val Intrasca, al Lago Maggiore. Aprile 1862. De Notaris. ISOTYPE: 'Erbar. Crittogram. Ital. 915. Orthotrichum microcarpum DNtrs Musci Ital. mss. – [Diagnosis]. Sui gelsi nei campi di Val Intrasca, al Lago Maggiore. Aprile 1862. De Notaris' (Fig. 1) – WRSL!

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### REFERENCES

- ALEFFI M., TACCHI R. & CORTINI PEDROTTI C. 2008. Checklist of the hornworts, liverworts and mosses of Italy. *Bocconeia* **22**: 5–254.
- AMANN J. (with collaboration of MEYLAN CH. & CULMANN P.) 1918. Flore des mousses de la Suisse. Deuxième partie. Bryogéographie de la Suisse. Imprimeries Réunies S.A., Lausanne.
- CHIKOVANI N. & SVANIDZE T. 2004. Checklist of bryophyte species of Georgia. In: M. ALEFFI (ed.), *Studi briologici in onore di Carmela Cortini Pedrotti. Braun-Blanquetia* **34**: 97–116.
- CORTINI PEDROTTI C. 2001. Flora dei muschi d'Italia. Sphagnopsida Andreacopsida Bryopsida (I parte). Antonio Delfino Editore Medicina-Scienze, Roma.
- CUCCUINI P. 1997. L'Erbario Crittogramico Italiano. Storia e struttura di una collezione con una introduzione storica di A. Graniti. Museo Botanico dell'Università, Sezione del Museo di Storia Naturale, Firenze.
- DE NOTARIS G. 1869. Epilogo della briologia italiana. *Atti Reale Univ. Genova* **1**: i–xxiv + 1–781.
- DE NOTARIS G. & BAGLIETTO F. (eds) 1863. Erbario crittogramico italiano. Fasc. XVIII. No. 901–950. Genova.
- KÜRSCHNER H. & FREY W. 2011. Liverworts, mosses and hornworts of Southwest Asia. (Marchantiophyta, Bryophyta, Anthocerotophyta). *Nova Hedwigia Beih.* **139**: 1–240.
- MCKEON J., BARRIE F. R., BURDET H. M., DEMOULIN V., HAWKSWORTH D. L., MARHOLD K., NICOLSON D. H., PRADO J., SILVA P. C., SKOG J. E., WIERSEMA J. H. & TURLAND N. J. 2006. International Code of Botanical Nomenclature (Vienna Code) adopted by the Seventeenth International Botanical Congress Vienna, Austria, July 2005. *Regnum Veg.* **146**: i–xviii + 1–568.
- MEINUNGER L. & SCHROEDER W. 2007. Verbreitungsatlas der Moose Deutschlands. 2. Akrokarphe Laubmoose: Andreaeaceae bis Splachnaceae. Oliver Dürhammer für die Regensburgische Botanische Gesellschaft von 1790 e.V., Regensburg.
- NYHOLM E. 1998. Illustrated flora of Nordic mosses. Fasc. **4**. Aulacomniaceae – Meesiaceae – Catostomatiaceae – Bartoniaceae – Timmiaceae – Encalyptaceae – Grimmiaceae – Ptychomitriaceae – Hedwigiaeae – Orthotrichaceae: 245–405. Nordic Bryological Society, Copenhagen and Lund.
- PLÁŠEK V. & SAWICKI J. 2009. Does the epiphytic moss *Orthotrichum microcarpum* De Not. grow in Poland? *Čas. Slez. Mus., Ser. A, Hist. Nat.* **58**: 191–192.
- PODPÉRA J. 1954. Conspectus muscorum europaeorum. Nakladatelství Československé Akademie Věd, Praha.
- SABOVLJEVIĆ M., NATCHEVA R., DIHORU GH., TSAKIRI E., DRAGIČEVIĆ S., ERDAG A. & PAPP B. 2008. Check-list of the mosses of SE Europe. *Phytologia Balcan.* **14**: 207–244.
- SAYRE G. 1969. Cryptogamae exsiccatae. An annotated bibliography of published exsiccatae of Algae, Lichenes, Hepaticae, and Musci. Introduction, I. General cryptogams, II. Algae, III. Lichenes. *Mem. New York Bot. Gard.* **19**(1): 1–174.
- SCHUMACKER R. & MARTINY P. (in collaboration with DÜLL R., HALLINGBÄCK T., HODGETTS N., SÉRGIO C., STEWART N., URMI E & VÁNA J.) 1995. Threatened bryophytes in

- Europe including Macaronesia. In: *Red Data Book of European bryophytes*. Part 2: 29–193. The European Committee for Conservation of Bryophytes, Trondheim.
- VITT D. H. 1973. A revision of the genus *Orthotrichum* in North America, north of Mexico. *Bryophyt. Biblioth.* 1: 1–208 + 60 pls.
- WIJK R. VAN DER, MARGADANT W. D. & FLORSCHÜTZ P. A. 1964. Index Muscorum. 3 (*Hypnum*–*O*). *Regnum Veg.* 33: 1–529.

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