

Maria Giovanna Dia

First record of *Campylopus oerstedianus* (Dicranaceae, Musci) in Sicily

Abstract

Dia, M. G.: First record of *Campylopus oerstedianus* (Dicranaceae, Musci) in Sicily. — Fl. Medit. 10: 81-85, 2000. — ISSN 1120-4052.

Campylopus oerstedianus has recently been collected for the first time in Sicily. It is a rare species known from isolated localities in Europe, Costa Rica, Jamaica and North Carolina. This new record suggests that *C. oerstedianus* is possibly in spreading in the European part of its range. As the scattered distribution in the Caribbean and Mediterranean areas is concerned, this suggests a range of circum-Tethyan origin.

Campylopus oerstedianus (Müll. Hal.) Mitt. is a submediterranean-oceanic species, included in the Red Data Book of European Bryophytes as “rare”, according to IUCN categories modified by ECCB (Schumacker & Martiny 1995). In Italy it is reported by Cortini Pedrotti & Aleffi (1992) as “endangered”.

In Europe it is reported from France, Corse, Spain, Switzerland, Greece, Italy (Düll 1984-85, 1992, 1995) and recently also from Germany (Frahm 2000). As to Italy it is known from Campania, Lombardia (Cortini Pedrotti 1992) and Trentino Alto Adige where it has been collected by Milde and described by Limpricht (1887) as *C. mildei*. Under this name the species has been reported from Europe until Frahm (1980) included it in *C. oerstedianus* described earlier from Costa Rica.

Besides Europe and Costa Rica the species is known in Jamaica and North Carolina (Crum & Anderson 1981).

C. oerstedianus is a heliophilous species which grows preferably on very acid substrata in arid surroundings (Düll 1991). Generally it occurs on rocks but in North America it colonizes also ground (Crum & Anderson 1981).

In Sicily *C. oerstedianus* has been collected, together with *Bryum torquescens* Bruch & Schimp., on corticolous fungus *Phellinus torulosus* (Pers.) Bourd. & Galz. which grows on a *Pinus halepensis* Mill. log inside an artificial woody plantation on Monte Pellegrino promontory, N of Palermo. The bryoflora of this area has been recently studied (Aiello & al. 1996) but this taxon was not found. In this new locality *C. oerstedianus* does grow neither on rocks, which are calcareous, nor on other substrata (Figs. 1, 2).

Voucher specimens are kept in the Herbarium Mediterraneum (PAL).

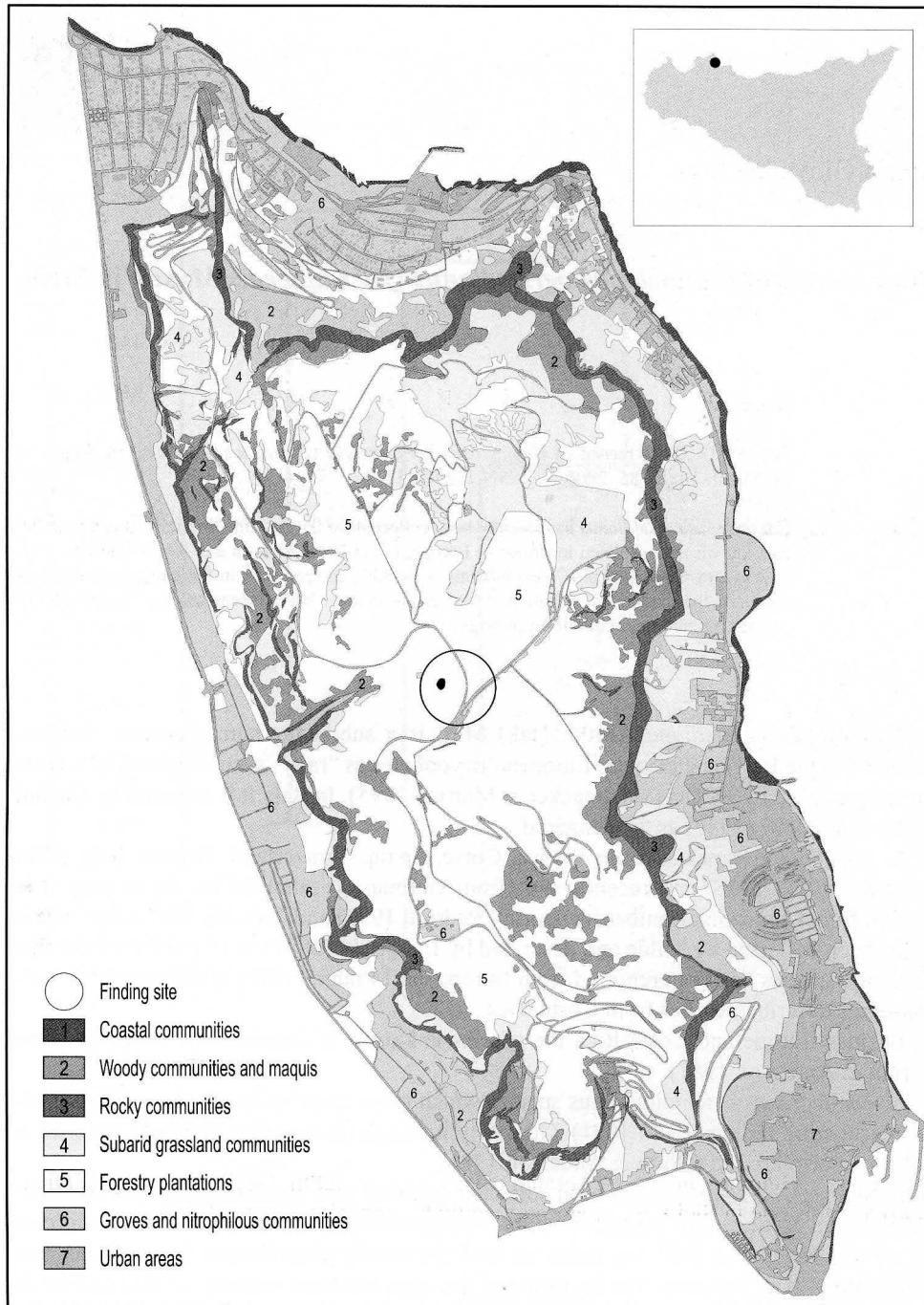


Fig. 1 - Location of the finding site of *Campylopus oerstedianus* on Monte Pellegrino (Vegetation Map from Surano & al, 1996) and in Sicily.



Fig. 2 - Particular of colony of *Campylopus oerstedianus* on fungus *Phellinus torulosus* from sicilian specimen.

This species is distinguished from the others of the genus by its ventral hyaline cells with large lumen (hyalocysts), its single dorsal stereid band and its projecting cells not forming lamellae in transverse sections of costa (Fig. 3). This latter character, together with oblique upper lamina cells (Fig. 4) and short hairpoint, will distinguish *C. oerstedianus* from the similar species *C. pilifer* Brid. and *C. introflexus* (Hedw.) Brid.

C. oerstedianus is unknown with sporophyte and it propagates only vegetatively. As a consequence of this its distribution in isolated localities is difficult to explain. The distribution along the shores of the Caribbean and Mediterranean Sea suggests a circum-Tethyan range and thus a late Mesozoic age (Frahm 1991).

The recent findings in France (Frahm 1989), Greece (Düll 1995), Germany (Frahm 2000) and this one in Sicily let supposed it could be a species in spreading.

Acknowledgements

I am grateful to Prof. J.-P. Frahm (Bonn) for the identification of the specimen and for providing additional information.

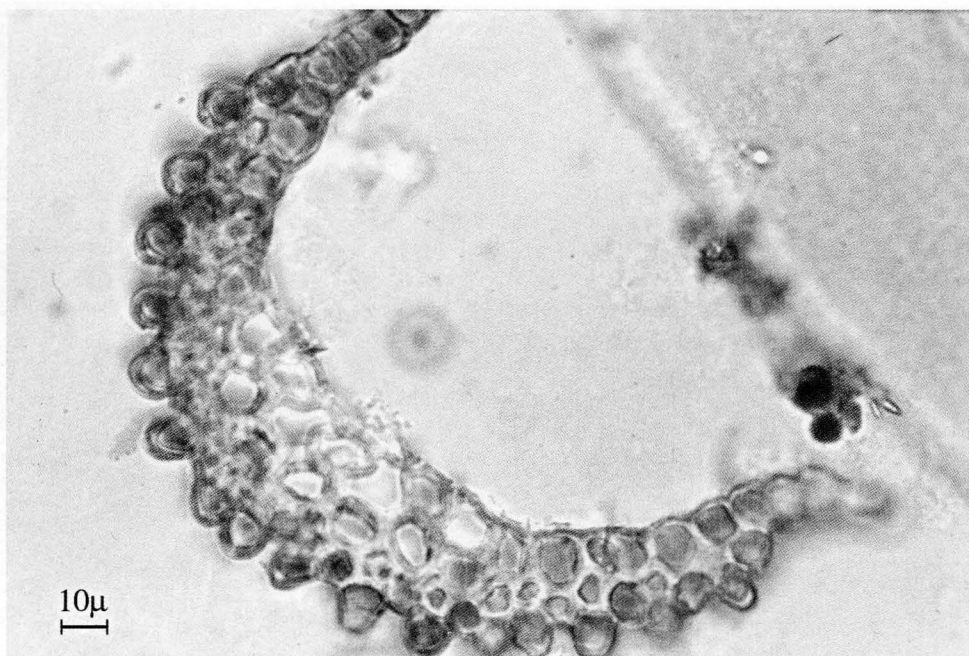


Fig. 3 - Leaf transverse section of *Campylopus oerstedianus* from sicilian specimen.

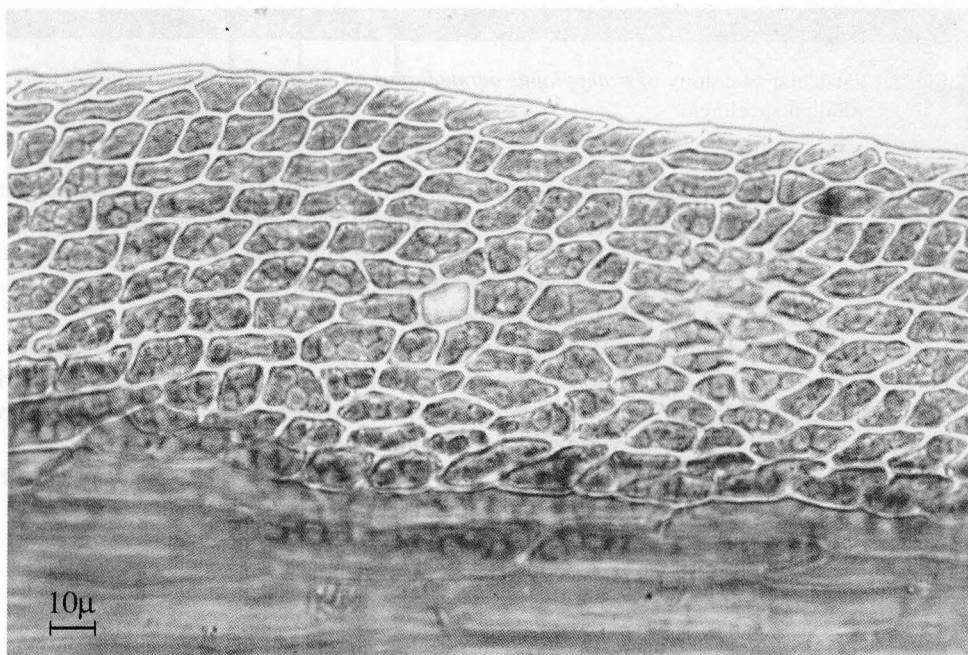


Fig. 4 - Upper lamina cells of *Campylopus oerstedianus* from Sicilian specimen.

References

- Aiello, P., Campisi, P. & Dia, M. G. 1996: Contributo alla conoscenza della florula briologica del promontorio di Monte Pellegrino (Palermo). - Quad. Bot. Ambientale Appl. 4: 49-59 (1993)
- Cortini Pedrotti, C. 1992: Check-list of the Mosses of Italy. - Fl. Medit. 2: 119-221.
- Cortini Pedrotti, C. & Aleffi, M. 1992: Lista Rossa delle Briofite d'Italia. - In: Conti, F., Manzi, A. & Pedrotti, F.: Libro Rosso delle piante d'Italia. - Associazione italiana per il W.W.F.. Roma. pp. 559-637.
- Crum, H. A. & Anderson, L. E. 1981: Mosses of eastern North America. - Columbia University Press. New York.
- Düll, R. 1984-85: Distribution of the European and Macaronesian Mosses (*Bryophytina*). - Bryol. Beitr. 4-5: 1- 232.
- Düll, R. 1991: Valori degli indicatori ecologici per muschi ed epatiche. - Atti del Congresso Internazionale di Briologia. L'Aquila 15-26 luglio 1991: 69-91.
- Düll, R. 1992: Distribution of the European and Macaronesian Mosses (*Bryophytina*). Annotation and Progress. - Bryol. Beitr. 8/9: 1-223.
- Düll, R. 1995: Survey of the bryophytes of Greece. - Bryol. Beitr. 10: 1-125.
- Frahm, J.-P. 1980: Taxonomische Notizen zur Gattung *Campylopus* IX. - J. Bryol. 11: 213-218.
- Frahm, J.-P. 1989: La Bryoflore des Vosges et des zones limitrophes. - Duisburg.
- Frahm, J.-P. 1991: Dicranaceae: Campylopodioideae, Paraleucobryoideae. - Flora Neotropica Monograph 54: 1-238.
- Frahm, J.-P. 2000: Bryophytes as indicators for recent climatic fluctuations in Central Europe. - Lindbergia (in press).
- Limpricht, K. G. 1887: Die Laubmoose Deutschlands, Oesterreichs und der Schweiz. - Leipzig. I: 1-836.
- Schumacker, R. & Martiny, Ph. 1995: Threatened bryophytes in Europa including Macaronesia. - In: European Committee for Conservation of Bryophytes - Red Data Book of European bryophytes. - ECCB, Trondheim.
- Surano, N., Gianguzzi, L. & Raimondo, F. M. 1996: Carta della vegetazione del promontorio di Monte Pellegrino (Palermo). Quad. Bot. Ambientale Appl. 4: 139-144 (1993).

Address of the author

Prof. Maria Giovanna Dia, Dipartimento di Scienze Botaniche dell'Università,
via Archirafi, 38, I-90123, Palermo, Italy.