

SOME INTERESTING RECORDS OF BRYOPHYTES FROM LA GOMERA ISLAND (CANARY ISLANDS, SPAIN)

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Abstract. Although the bryophyte flora from La Gomera island is largely known, some new and interesting species has been recently recorded, mainly in those habitat types less studied of the cloud forest areas. A rare liverwort species in the Canaries, previously known only from Tenerife island (*Telaranea europaea*), and three mosses (*Didymodon sicculus*, *Rhamphidium purpuratum* and *Sciuro-hypnum plumosum*) are reported here as new to La Gomera. *R. purpuratum* is especially interesting due to its worldwide rarity.

Resumen. Aunque existe un amplio conocimiento sobre la flora briofítica de la isla de La Gomera, se han encontrado recientemente algunas nuevas e interesantes especies, principalmente en aquellos hábitats menos estudiados de áreas de bosques de nieblas. Una especie de hepática rara en Canarias, conocida solamente para la isla de Tenerife (*Telaranea europaea*), y tres de musgos (*Sciuro-hypnum plumosum*, *Didymodon sicculus* and *Rhamphidium purpuratum*) se citan por primera vez para La Gomera. *R. purpuratum* es especialmente interesante debido a su rareza mundial.

INTRODUCTION

Bryophytes have long been surveyed in the Canary Islands. New records from this archipelago are currently scarce, although still present (e.g. Cezón & Muñoz, 2006). This tendency becomes more patent in cloud forest areas (laurel forest and *Erica-Myrica* woodland), where bryological studies have been more intensive (e.g. Losada-Lima *et al.*, 1987b & 1990; González-Mancebo *et al.*, 2003 & 2004a). Cloud forests are defined as one of the most emblematic ecosystems from Canaries. The best conserved and broadest formation occurs in La Gomera island (Fernández, 2001), where most of its cloud forest area was designated as National Park (Garajonay N.P.) in 1981, and inscribed on the World Heritage List in 1986 by UNESCO.

Bryophyte flora recorded from La Gomera comprises 288 taxa, *ca.* 50% of species recorded to this archipelago, of which almost 90% grow in cloud forest areas (González-Mancebo *et al.*, 2006). Despite these data, there are many species occurring in cloud forest

areas of Tenerife, which have not been still recorded for La Gomera. This allows supposing us that some cloud forest habitats in this last island need more research efforts that may increase its total number of bryophyte species.

METHODOLOGY

Several field expeditions were made by some of the authors between 2005 and 2006, while making field work, as part of the Ph.D. research of the first author. Localities are inside Garajonay National Park and neighbouring zones (UTM grid: 28RCS2831), all placed in potential laurel forest areas from La Gomera island. The specimens are deposited in the herbarium of La Laguna University (TFC Bry).

RESULTS

We have found four new bryophyte records from La Gomera island: one hepatic (*Telaranea europaea*) and three mosses (*Didymodon sicculus*, *Rhamphidium purpuratum* and *Sciuro-hypnum plumosum*).

***Telaranea europaea* Engel & Merr. — Lepidoziaceae**

ENCHEREDA: 800 *m.s.m.* Terricolous and epiphyte species growing in ericaceous forests dominated by *Erica platycodon*, *E. arborea*, *Ilex canariensis* and *Laurus novocanariensis*, with high presence of *Dryopteris oligodonta*. Patiño-Llorente, González-Mancebo & Leal. 15-02-2006, TFC Bry 15180.

The presence of abundant perianths in our collection has allowed us to confirm the identity of this taxa, following Engel & Smith-Merrill (2004). Currently, *Telaranea europaea* (previously identified as *T. nematodes*) is known only from Anaga mountains (NE of Tenerife island). All these localities have a common feature, to be placed within ericaceous forests with high incidence of NE prevailing moist winds and subsequently important mist precipitation.

***Didymodon sicculus* M. J. Cano et al. — Pottiaceae**

EL REJO: 910 *m.s.m.* Terricolous species on dripping wall located close to the road. Vegetation is mainly composed by *Erica platycodon* and *Phyllis nobla*, with high presence of *Equisetum ramosissimum*. Patiño-Llorente, González-Mancebo & Leal, 15.05.2005, TFC Bry 15181. EL REJO: 555 *m.s.m.* Terricolous, growing at the edge of a stream located within an arable field. Vegetation is dominated by *Equisetum ramosissimum*, with some nitrophyllous species, for instance *Sonchus oleraceus* and *Bituminaria bituminosa*. Patiño-Llorente, González-Mancebo & Leal, 16.06.2005, TFC Bry 15182.

Previously, this moss species has been recorded from Tenerife and Gran Canaria (Jiménez et al., 2004), and La Palma (González-Mancebo et al., 2004 b). Although *Didymodon sicculus* has been defined as a xerophilous species (Dierßen, 2001; Jiménez et al., 2004), we have been able to view this species growing on soils nearly water in other different areas of this archipelago (unpublished data).

***Rhamphidium purpuratum* Mitt. — Pottiaceae**

LAS ROSAS: 690 *m.s.m.* Terricolous, growing at the edge of a waterfall located closely road. Vegetation is dominated by *Rubus ulmifolius* and *Pteridium aquilinum*, with many nitrophilous species. Patiño-Llorente, González-Mancebo & Leal, 15.08.2005, TFC Bry 15178. LAS ROSAS: 620 *m.s.m.* Also terricolous on dripping wall located at the edge of the road. Vegetation is characterised by some small trees of *Myrica faya*, enclosed by dense brambles (*Rubus ulmifolius*). Patiño-Llorente, González-Mancebo & Leal, 16.08.2005, TFC Bry 15179.

Rhamphidium purpuratum was described by Mitten (1870) from specimens sampled at Azores and Madeira. Winter (1914) published the new species *Dicranella teneriffae* on the basis of sterile material collected by himself from Canary Islands (Tenerife, Agua García forest). Later, Persson (1939) synonymised *D. teneriffae* to *R. purpuratum*.

According to available information, only three records have been later published to the Canary Islands, all for Tenerife: la Caldera de Aguamansa (Long *et al.*, 1981), bosque de Agua García (Losada-Lima & Beltrán, 1987a) y barranco de la Iglesia (Blockeel, 2002). As many freshwater habitats of the Canary Islands have not been still surveyed, we hope to find new localities in further studies. Worldwide distribution of *Rhamphidium purpuratum* is restricted to Azores, Madeira, Canary Islands and Crete. This bryophyte species was also reported from Portugal by Luisier (1947 & 1948), however it is currently considered to be extinct in Iberian Peninsula (Sérgio *et al.*, 2001). Because of its rarity, this species has been classified as vulnerable in Europe by different authors (Dierßen, 2001; Sabovljevic *et al.*, 2001).

***Sciuro-hypnum plumosum* (Hedw.) Ignatov & Huttunen — Brachytheciaceae**

EL REJO: 716 *m.s.m.* On big rocks in a stream closely the small hermitage of El Rejo. Disturbed laurel forest dominated by *Myrica faya* and *Rubus ulmifolius*. Patiño-Llorente, González-Mancebo & Leal, 04.06.2005, TFC Bry 15183.

Since the beginning of the past century (Pitard, 1907), this species of worldwide distribution has been recorded in several occasions for El Hierro, La Palma y Tenerife.

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