

BRYOPHYTE EXCURSION IN THE „BĂRĂGANU“ FORESTRY EXPERIMENTAL STATION (IALOMIȚA DISTRICT, SOUTH-EASTERN ROMANIA) – OCTOBER 1992

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Beginning with 1947 the „Bărăganu“ Forestry Experimental Station has developed research and management programs concerning the selection of the most fitted forestry species to be cultivated in the drough exposed area from South-Eastern regions of Romania (see the map). Consequently, on a typical steppe area, a collection of dendrological species has been established; the area has been divided by a net of plots containing various combination of forestry species with or without understory. Recently, the ecological researches streched a most interesting fact, the establishment of typical forest biocenoses (Doniță N., 1992). The aim of the present paper is to give some information on the diversity of bryophyte species gathered at the „Bărăganu“ Forestry Experimental Station during an excursion in late October 1992. A list of identified species and the correspondent plots is presented (see table 1).

The gathering of the bryophytes took place in three different plots:

- plot cultivated with *Pseudotsuga menziesii* (douglas-fir) without understory;
- plot cultivated with *Quercus pedunculiflora*, *Fraxinus angustifolia* and an understory composed of: *Crategus monogyna* *Rosa canina*, *Evonymus verrucosa*, and disseminated *Tilia argentea*;
- plot cultivated with *Quercus cerris* and a scarce understory composed of *Crategus monogyna* and *Evonymus verrucosa*.

Concerning the frequency of the species in samples and corresponding plots, high findings were recorded in: *Ceratodon purpureus*, *Leskea polycarpa*, *Amblystegium serpens*, *Amblystegium varium*, *Brachythecium velutinum*, *Hypnum cupressiforme* and *Pylaisia polyantha* (see table 1).

A remarkable fact is the scarcity of the species of Hepaticae class, represented only by two species: *Radula complanata* and *Frullania dilatata*.

Most of the bryophyte species listed (see table 1) are common in Romanian silvo-steppe, Câmpia Română, (Papp, 1970), a drought exposed area, and are generally xerophytes excepting several species which are mesophytes. The mesophyte species, at the collection date, were lacking sporogonia. However, it doesn't exclude the presence of sporogonia in rainy years.

The species collected with sporogonia are either corticolous (*Leskea polycarpa*, *Pylaisia polyantha*, *Amblystegium serpens*), either terricolous (*Ceratodon purpureus*). Among the terricolous species which are normally with conspicuous sporogonia (Papp C., 1970) for example: *Brachythecium salebrosum* and *Brachythecium rutabulum*, at the collection date, they didn't exhibit such structures. This means that in the area under research these species, probably, haven't completed their life cycle (they lack a sexual phase).

This preliminary study gives only an estimative idea about the diversity of bryophytes in such an peculiar and interesting area as „Bărăganu“ Forestry Experimental Station, an unique model of forestation in a typical steppe area. For more information further studies are needed.

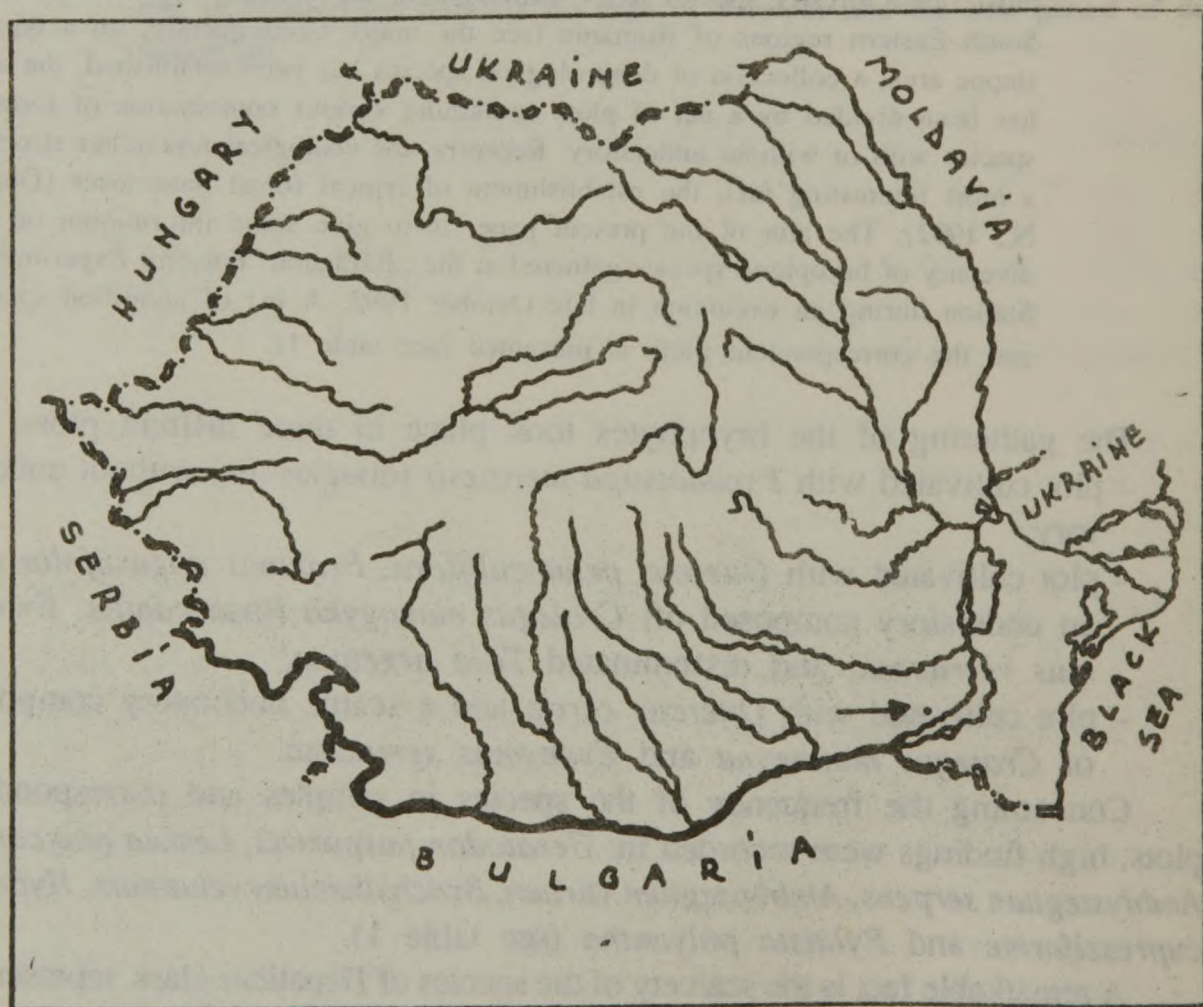


Fig. 1. The station of the „Bărăganu“ Forestry Experimental Station in Romania.

Table 1

The distribution of the collected bryophyte species in three different plots at the „Bărăganu“ Forestry Experimental Station (presence – absence data)

SPECIES	PLOTS			SUBSTRAT		
	1	2	3	4	5	6
Fam. Radulaceae						
Radula complanata (L.) Dum.	-	+	+	-	+	+
Fam. Frullaniaceae						
Frullania dilatata (L.) Dum.	-	+	+	-	+	-
Fam. Ditrichaceae						
Ceratodon purpureus (Hedw.) Brid*	+	+	+	+	-	-
Fam. Pottiaceae						
Tortula virescens (De Not.) De Not.	-	+	-	-	+	-
Fam. Bryaceae						
Bryum caespiticium Hedw.*	+	+	-	+	-	-
Bryum flaccidum Brid.	-	-	+	-	-	+
Bryum microerythrocarpum C. Müll. et Kindb.	-	+	-	+	-	-
Fam. Orthotrichaceae						
Orthotrichum affine Brid.	-	+	-	-	+	-
Orthotrichum fastigiatum Brid.*	-	+	+	-	+	+
Orthotrichum pumilum Sw.*	-	+	+	-	+	+
Orthotrichum speciosum Nees	-	+	-	-	+	-
Fam. Leskeaceae						
Leskea polycarpa Hedw.*	+	+	+	-	+	+
Fam. Amblystegiaceae						
Amblystegium serpens (Hedw.) B. S. G.*	+	+	+	+	+	+
Amblystegium varium (Hedw.) Lindb.*	+	+	+	-	-	+
Fam. Brachytheciaceae						
Brachythecium rutabulum (Hedw.) B. S. G.	+	+	+	+	+	+
Brachythecium salebrosum (Web. et Mahr.) B. S. G.	+	+	-	+	+	-
Brachythecium velutinum (Hedw.) B. S. G.*	+	+	+	+	+	+
Fam. Hypnaceae						
Hypnum cupressiforme Hedw.	+	+	+	+	+	+
Hypnum cupressiforme var. filiforme Brid.	+	+	+	-	-	+
Pylaisia polyantha (Hedw.) B. S. G.*	+	+	+	-	-	+

Legend:

- 1 – plot cultivated with *Pseudotsuga menziesii*;
- 2 – plot cultivated with *Quercus pedunculiflora*, *Fraxinus angustifolia* and understory;
- 3 – plot cultivated with *Quercus cerris*;
- 4 – terricolous
- 5 – corticolous
- 6 – lignicolous
- * – species collected with sporogonia

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BRIOFITE DIN STAȚIUNEA FORESTIERĂ „BĂRĂGANU“ (Jud. Ialomița)

R e z u m a t

Recoltarea, în luna octombrie a anului 1992, unor specii de briofite apărute în Stațiunea Experimentală „Bărăganu“ (jud. Ialomița) ca urmare a formării unei biocenoze de pădure într-o zonă împădurită artificial a evidențiat următoarele:

– Majoritatea speciilor de briofite sunt comune pădurilor din Câmpia Română fiind xerofite.

– Puținele briofite mezofite apărute în această zonă sunt lipsite de sporogoe.

– Specimenele colectate cu sporogoe sunt, de regulă, specii corticole (*Leskea polycarpa*, *Pylaisia polyantha*, *Amblystegium serpens*).

– Numărul hepaticelor este redus la două specii (*Radula complanata*, *Frullania dilatata*); acestea la rândul lor au o frecvență destul de redusă.

Studiul de față reprezintă un studiu preliminar urmând ca datele obținute să fie îmbogățite cu noi observații în teren.