

不同森林群落下苔藓植物多样性特征

何宇婷¹ 陈辉琴¹ 唐 岚¹ 白一术¹ 黄姗姗¹ 刘团圆¹ 胡永寿¹ 郝建锋^{1,2**}

(1 四川农业大学林学院 成都 611130; 2 四川农业大学水土保持与荒漠化防治重点实验室 成都 611130)

摘要: 苔藓植物几乎广泛的分布于森林中所有生境,是森林生态系统的重要组成部分,促进森林生态系统物种多样性,在森林动态变化过程中扮演着不可替代的角色。为探究 5 种不同森林群落下苔藓植物物种多样性变化及物种相似性程度,在四川省宝兴县神木垒风景区,采用典型样地法选取 5 种不同森林群落为研究对象(I:云杉林群落;II:丽江云杉林群落;III:红杉林群落;IV:针阔混交林群落;V:阔叶林群落),在研究区域内设置 20 个样地 240 个样方,共采集苔藓植物标本 996 份。统计苔藓植物物种组成、重要值、物种多样性指数以及 Sørensen 相似性系数。结果表明:(1)研究区域内共统计苔类植物 11 科 13 属 18 种,藓类植物 15 科 26 属 38 种,共计调查苔藓植物 56 种,隶属 26 科 39 属。不同森林群落下苔藓植物种类表现为云杉林种类数最小,丽江云杉林和针阔混交林下种类数量最大。(2)不同森林群落林下各个生境类型的苔藓植物物种丰富度总体表现为:枯生>石生>树生>土生。枯枝落叶生境是四种生境类型中最为常见的生境形式。(3)不同森林群落苔藓植物优势种较为一致,其中白齿藓(*Leucodon sciuroides*)、细叶小羽藓(*Haplocladium microphyllum*)在五个森林群落下均为优势种。(4)苔藓植物物种丰富度指数 D 值在类型 II 最大,在类型 I 最小;多样性指数 H'、优势度指数 H'、均匀度指数 J_{sw} 等三个指数均呈现一致的结果。(5)五种森林群落苔藓植物的 Sørensen 相似性系数均在 0.5 以上。神木垒风景区不同群落间苔藓植物物种多样性在群落类型和生境上呈现不同的差异性,群落间优势种较为一致,物种相似性较高。

Characteristics of bryophyte diversity in different forest communities

Abstract: Bryophytes are widely distributed in almost all habitats in forests, and they are an important part of forest ecosystems, promoting species diversity in forest ecosystems and playing an irreplaceable role in the process of forest dynamics. In order to investigate the changes of species diversity and the degree of species similarity of bryophytes in five different forest communities, five different forest communities were selected for the study in the Shenmu Base Scenic Area, Baoxing County, Sichuan Province, by using the typical sample plot method (I: spruce forest community; II: Lijiang spruce forest community; III: redwood forest community; IV: mixed coniferous and broadleaf forest community; and V: broadleaf forest community), and 240 sample squares were collected from 20 sampling plots in the study area. A total of 996 bryophyte specimens were collected from 20 sample plots and 240 sample squares in the study area. The bryophyte species composition, importance value, species diversity index and Sørensen similarity coefficient were calculated. The results showed that: (1) a total of 18 species of 11 families, 13 genera of bryophytes and 38 species of 15 families, 26 genera of bryophytes were counted in the study area, and a total of 56 species of bryophytes belonging to 26 families and 39 genera were investigated. The number of bryophytes in different forest communities was the smallest in spruce forests, and the

largest in Lijiang spruce forests and mixed coniferous and broad forests. (2) The species richness of bryophytes in the understorey of different forest communities was as follows: withered > stony > arboreal > earthy. The dieback habitat was the most common habitat form among the four habitat types. (3) The dominant species of bryophytes in different forest communities were relatively consistent, among which *Leucodon sciuroides* and *Haplocladium microphyllum* were the dominant species in all five forest communities. (4) The value of bryophyte species richness index D was the largest in type II and the smallest in type I. The three indices of diversity index H , dominance index H' , and evenness index J_{sw} showed consistent results. (5) The Sørensen similarity coefficients of the bryophytes of the five forest communities were all above 0.5. The species diversity of bryophytes among different communities in the Shenmu Base Scenic Area showed different variability in community types and habitats, and the dominant species among communities were more consistent with higher species similarity.