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苍耳子基源植物的数量分类学研究与生药鉴别 点此下载全文

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摘要：

目的：对中药苍耳子的基源植物进行数量分类学及生药鉴别研究，为苍耳属药用植物的分类、鉴定与种质优选提供参考。方法：采集全国25个居群苍耳属植物果实进行异地栽培试验，出苗后观察生长情况、形态特征；选取20个分类性状，如生长周期、植株高度、叶柄长度、总苞刺长度、密度、喙长及成熟果实颜色等进行详细的观察、记录和分析；采用聚类分析法，以25个分类运算单位的20个性状数据形成25×20的原始数据矩阵X={Xij}25×20，对矩阵经SPSS 13.0 软件进行聚类分析。结果与结论：以20个性状为指标的聚类分析结果将25个居群分成四大类，基本支持作者根据样品形态指标观察得出的鉴定结果。第一类鉴定为苍耳Xanthium sibiricum，第二类为蒙古苍耳X. mongolicum，第三类为近无刺苍耳X. sibiricum var. subinerme；第四类暂将其命名为“深圳型苍耳”Xanthium sp.（未定种），有可能为新的栽培变种。根据此结果可将国产苍耳子基源植物整理为3种1型（深圳型），并对已有分类标准进行了修订。本文报道的聚类分析法可以用于苍耳属植物及生药的鉴别。

关键词：苍耳子 数量性状 遗传 分类法 中药鉴定 聚类分析

Numerical taxonomy of origin plants of Fructus Xanthii and identification of its crude drug Download Fulltext

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Abstract:

Objective: To conduct a numerical taxonomy research on the origin plants of Fructus Xanthii and to identify this crude drug, so as to provide evidence for the classification, identification and germplasm optimization of Xanthium genus. Methods: Fruits of Xanthium plants from 25 populations in China were collected and cultivated in the same location. Their growing conditions and morphological characteristics were observed after seedling emergence. And 20 taxonomic characters of the plants such as growth cycle, height of the whole plant, length of leafstalk, length and density of involucre thorn, length of beak and color of ripe fruits, etc. were selected for detailed observation, recording and analysis. Original data matrix X={Xij}25×20was established by means of 25 operational taxonomic units(OTU) and related 20 groups of characteristic data. The established matrix was analyzed using hierarchical cluster analysis on SPSS 13.0 software. Results and Conclusion: The origin plants of Fructus Xanthii from 25 populations of China fell into four groups, largely consistent with the morphological identification results of this study. The first group was identified as Xanthium sibiricum, the second as X. mongolicum, the third as X. sibiricum var. subinerme, and the fourth was temporarily named as “Shenzhen-type cocklebur” Xanthium sp.. The Shenzhen-type cocklebur was special in some taxonomic characters and was possibly a cultivated variety of Xanthium genus. The origin plants of Fructus Xanthii in China can be systematized into 3 species and 1 type, which has been added to the existing taxonomic criteria. The cluster analysis method in this study can be applied for discrimination of Xanthium plants and crude drugs.

Keywords: Fructus Xanthii quantitative trait heritable classification TCD identification cluster analysis

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