

北极花：一款生物多样性快速调查与数据分析软件介绍 与评价

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摘要：生物多样性调查是生物多样性保护的基础工作也是十分艰巨的工作。物种识别困难，加之传统的野外调查和数据整理方法费时费力，因而生物多样性调查效率普遍不高。随着信息技术的发展，智能识别技术应用越来越广泛，物种识别精度得到不断提高，数字化、智能化等技术的应用越来越广泛。本文介绍一款免费专业的生物多样性快速调查与数据分析软件：北极花。北极花具有手机 APP 和网页端，北极花 APP 最大的特点是“调查快”，具有拍照识物、语音记录、联想录入等高效数据采集功能，调查形式丰富，具有样方调查、样线调查等专业调查方法，适用于动植物和大型真菌等生物；网页端具有数据管理与分析功能，可以导出物种名录并进行区系分析、生物多样性指数计算与科属统计等分析，还可以生成“生物多样性监测报告”，辅助撰写自然保护区科学考察报告。此外，用户可以自由设置调查因子，数据本地存储不会外泄，还支持无网调查。借用北极花 APP 还可以开启一种新的生物多样性调查模式：“公众的腿+专家的脑”，发挥公众的腿力和专家的知识，降低调查门槛，降低工作费用，助力于生物多样性调查监测与保护事业。

关键词：北极花 APP；生物多样性快速调查；物种识别；区系分析；生物多样性指数

Introduction and evaluation of Beijihua: a rapid biodiversity survey and data analysis software

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Abstract: Biodiversity investigation is a basic and difficult work of biodiversity conservation. Because of the difficulty of identification species, data collection of traditional field investigation and time-consuming and laborious methods, the biodiversity investigation is not efficiency. With the development of information technology, intelligent identification technology is more and more widely used, the accuracy of species identification is constantly improved, and the application of digital and intelligent technologies is more and more extensive. This article introduces a free and professional biodiversity survey and data analysis software: Beijihua. Beijihua has a mobile APP and a web terminal. The biggest feature of Beijihua APP is "fast investigation", with efficient data collection functions such as photo identification, voice recording and associative input. It has a variety of professional survey forms and methods such as quadrat and line transect survey, which are applicable to animals,

plants and macrofungi. The web terminal has the function of data management and analysis, which can export the species list and analysis flora, calculate biodiversity index and statistics the family and genus. It can also generate "biodiversity monitoring report" to assist in writing scientific investigation reports of nature reserves. In addition, the user can set the survey factors freely, the data storage in the local terminal and not be leaked, it can also support no network survey. With the Beijihua APP, we can also found a new mode of biodiversity investigation: "public legs + expert brains", which brings into play the strength of the public and the knowledge of experts, reduces the threshold of investigation and the cost of work, and helps the investigation, monitoring and protection of biodiversity.

Key words: Beijihua APP; rapid biodiversity survey; species identification; flora analysis; biodiversity index