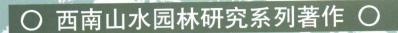


石林风景名胜区

音称温不

主 编 邓莉兰 李正平 冯正清

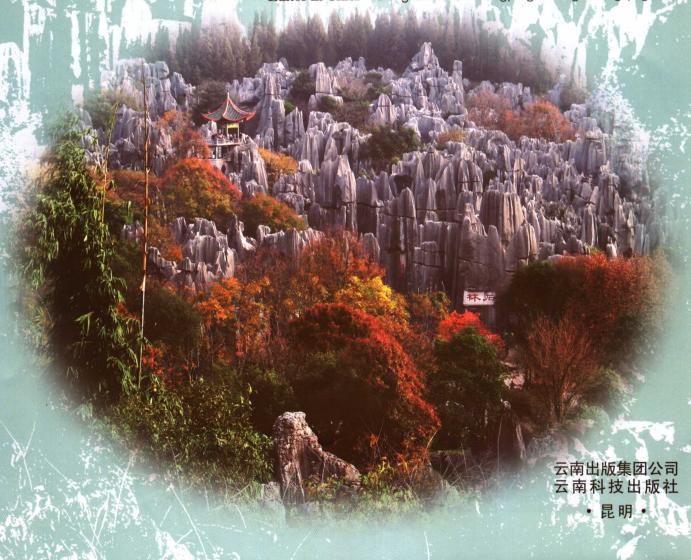
- ◆云南出版集团公司
- ◆云南科技出版社



石林风景名胜区

Antique and Famous Trees in Stone Forest Scenic Spot

主 编 邓莉兰 李正平 冯正清 Editor in Chief Deng Lilan Li Zhengping Feng Zhengqing



图书在版编目(CIP)数据

石林风景名胜区古树名木/邓莉兰,李正平,冯正清主编.一昆明:云南科技出版社,2006.7 ISBN 7-5416-2382-2

I. 石... II. ①邓... ②李... ③冯... III. 木本植物—植物志—石林彝族自治县 IV. S717.274.4

中国版本图书馆 CIP 数据核字(2006)第 077506 号

云南出版集团公司 云南科技出版社出版发行

(昆明市环城西路 609 号云南新闻出版大楼 邮政编码:650034) 云南福保东陆印刷股份有限公司印刷 全国新华书店经销 开本:889mm×1194mm 1/16 印张: 8.5 字数:218 千字 2006 年 7 月第 1 版 2006 年 7 月第 1 次印刷 印数: 1~2000 册 定价:168.00 元

◎ 西南山水园林研究系列著作编辑委员会 ◎

主 编: 樊国盛

编 委: (按姓氏笔画排序)

邓莉兰 陈 坚 宋钰红 苏晓毅

张 云 林 萍 段晓梅 魏开云

Editorial Committee of Series Works on Landscape Architecture with Mountain and Water Characters of Southwestern China

Editor in Chief Fan Guosheng

Members (Ordered alphabetically)

Deng Lilan Chen Jian Song Yuhong Su Xiaoyi

Zhang Yun Lin Ping Duan Xiaomei Wei Kaiyun

编辑委员会

主 任 李正平 樊国盛

冯正清 邓莉兰 副主任

杨光荣 王芳芳 林开文 委员 辉

编写委员会

丰 邓莉兰 李正平 冯正清 编

副主编 王芳芳 王红兵 林开文

疍 辉 杨光荣 委 区

> 徐远杰 段晓梅 刘 扬 璇

杨自云 齐高超 苏静霞

邓莉兰 王红兵 影

邓莉兰 英文翻译 屈 燕

Organizing Committee

Director

Li Zhengping Fan Guosheng

Vice Director

Feng Zhengqing Deng Lilan

Members

Yang Guangrong Wang Fangfang

Editorial Committee

Editor in Chief

Deng Lilan Li Zhengping Feng Zhengqing

Lin Kaiwen

Deputy Editor in Chief

Wang Fangfang

Wang Hongbing

Lin Kaiwen

Xu Hui

Members

Xu Hui Yang Guangrong Xu yuanjie Duan Xiaomei Qu zhi Li Shuangzhi Lu Xuan

Liu Yang Su Jingxiao

Yang Ziyun Qi Gaochao

Photographers

Wang Hongbing

Deng Lilan

English Translation

Qu yan Deng Lilan

前言 ····································	4
Preface ·····	5
石林风景名胜区概况	6
Brief Introduction on Stone Forests Scenic Spots	7
石林风景名胜区古树名木分析	8
Analysis on the antique and famous trees in the Spot	10
1. 黄连木 ···································	12
Pistacia chinensis ·····	13
2. 皮哨子	14
2. 皮哨子	15
3. 云南松 ···································	16
Pinus yunnanensis ······	17
4. 清香木	18
Pistancia weinmannifolia ·····	19
5. 樟树	
Cinnamomum camphora	21
6. 川梨 ···································	22
Pyrus pashia ·····	23
7. 香椿	24
Toona sinensis ·····	25
8. 干香柏	26
Cupressus duclouxiana	
9. 毛叶合欢	28
Albizia mollis ·····	29
10. 合欢	30
Albizia julibrissin ·····	31
11. 中华常春藤	32
Hedera nepalensis var. sinensis	
12. 昆明朴	34
Celtis kunmingensis ·····	35
13. 云南油杉	36
Keteleeria evelyniana ······	37
14. 滇润楠	38
Machilus yunnanensis	39
15. 流苏	4 ∩
	41
16. 光叶合欢	
Albizia lucidior ······	
17. 臭椿 ···································	
Ailanthus altissima ·····	
18. 侧柏	
Playtycladus orientalis ······	4 7
19. 乌桕	
Sapium sebiferum·····	
20. 川滇蔷薇	
Rosa soulieana ······	
21. 君迁子	
Diospyros lotus ·····	
22. 昆明榆 ···································	51
Ulmus kunmingensis ·····	
23. 枇杷 ······	
Eriobotrya japonica ·····	
24. 漆树 ······	50 50
Toxicodendron verniciflum······	50
7 <i>5</i> 元南皂並	60

Antique and Famous Trees in Stone Forest Scenic Spot



Gleditsia delavayi ·····	61
26. 槲栎	
Quercus aliena ·····	63
27. 香花崖豆藤	64
	65
28. 梅	66
Armeniaca mume ·····	67
29. 紫薇	
Lagerstroemia indica ·····	69
	70
Ficus sarmentosa ·····	71
31. 鸡桑	72
Mous mongolica ·····	73
32. 构树	74
Broussonetia papyrifera	75
33. 柞木	76
Xylosma congestum·····	77
34. 雪松	78
Cedrus deodara ····	79
35. 大叶桂樱	80
Lauroerasus zippeliana ·····	81
36. 含羞草叶黄檀	82
Dalbergia mimosoides	83
37. 常绿榆	84
Ulmus pumila ·····	85
38. 滇厚壳 ···································	86
Ehretia corylifolia ····································	87
S9. 系评们 ···································	88
40. 贵州络石 ····································	89
Trachelospermum bodinierei ······	90
41. 云南山楂 ····································	91
Crataegus scabrifolia	92
42. 胡桃 ···································	93
Juglans regia ·····	94 05
43. 楝树 ···································	90
Melia azedarach ·····	90
44. 板栗	9/ 20
Castanea mollissima ·····	30 30
45. 复羽叶栾树	99 10
Koelreuteria bipinnata 10	JU 14
46. 短萼海桐	ו כ כר
Pittosporum paniculiferum	72 72
47. 栓皮栎	7 <i>0</i>
Quercus variabilis) -1)5
48. 中华山矾 10	
Quercus variabilis 10	
表一 石林风景名胜区古树名木分区一览表 Table 1 Antique	- 1
and famous trees of Shillin (Stone forest) Scenic plot	
according to areas)9
表二 石林风景名胜区古树名木分布状况表 Table 2 Antique	
and famous trees of Shilin (Stone forest) Scenic plot	
according to species	22
参考文献 Reference ······	

前言



石林景区风光迷人 Fantastic scenery in Stone Forest Scenic Spot



大石林景区远眺 Overlook from Large Stone Forest District



清水塘村里的黄连木古树 Pistacia chinensis antique tree in Qingshuitang Village

石林风景名胜区位于云南省昆明市石林县境内,是国家 4A级风景名胜旅游区,总面积达350平方千米。由于有景观保护与当地民族发展的良好基础,保存有大量古树,并且正在成长着一批名木。这些古树名木对石林风景名胜区旅游事业的进一步发展有着不可估量的旅游价值以及其他潜在价值。

古树名木是指人类历史过程中保存下来的年代久远或具有重要科研价值、历史价值、文化价值或纪念意义的树木。古树名木是历史发展的见证,是民族、宗教、文化和民俗的另一种表现形式和载体。因此,它是自然科学研究的"活标本",是社会科学研究的"活文物",是研究生命科学的"活资料",是弘扬中华民族传统和精神文明的"活教材"。

国务院 1992 年颁布的《城市绿化条例》明确规定:"百年以上树龄的大树,稀有、珍贵树木,具有历史价值或重要纪念意义的树木,均属古树名木。"自古以来,云南各族人民均有栽花植树和爱护树木的优良传统,特别是对于年代久远的古树名木和水源林,更是倍加珍惜爱护,自觉在古树名木周围砌砖垒石、修建栅栏、撰文立碑,予以精心呵护。

为了弄清石林风景名胜区的古树名木资源,石林风景名胜区管理局与西南林学院合作开展了石林风景名胜区的古树名木资源调查研究。经过调查研究,石林风景名胜区共有古树名木 263 株,其中一级古树 11 株,二级古树 29 株,三级古树 192株,后备古树 29 株;名木 2 株;分属于 25 科 41 属 48 种,并对各古树名木的分布、生长状况、管理措施等进行了分析研究。

本书在上述研究成果的基础上进行整理而成,全书共分为四个部分:第一部分为石林风景名胜区的概况,介绍了石林风景区的自然及资源情况;第二部分为石林风景名胜区古树名木分析;第三部分分别介绍石林风景区古树名木 48 种的主要特征及在石林古树中的地位,同时,每个种附有彩色图片;第四部分为石林风景名胜区古树名木按树种分布状况表和按分区分布一览表,表中记载了每株古树名木的资料,以便查询。

本书由石林风景名胜区管理局和西南林学院园林植物与观赏园艺省级重点建设学科资助研究经费和出版经费,石林风景名胜区管理局的李正平局长、冯正清副局长,西南林学院园林学院院长樊国盛教授给本项研究提供了大力支持,并指导调查工作,使得本成果得以顺利成书。

本书由邓莉兰教授等主编,王芳芳、杨光荣、王红兵、区智、段晓梅、刘杨等参加调查,书成型后又蒙中国树木学会副理事长、西南林学院教授樊国盛博士审阅。

本书可供园林、旅游、林学、生物等专业的研究人员和相关专业的学生参考。

由于水平及时间有限,书中可能出现错误与不恰当之处,希望使用者提出宝贵意见,并批评指正(联系方式:邓莉兰,lilandeng1962@yahoo.com.cn),以便进一步完善。

Preface

Stone Forests Scenic Spots lies in Shilling county (Stone Forest county) and stands on national Graded-4A tourist attraction list. Its total area is up to 350 km². Thanks to landscape protection and the development of local minorities, it remains a great number of antique trees that have been growing a patch of famous trees, which give great potential values for further development in local tourism.

Antique and famous trees are regarded as those that have endured for long human history or with significant value in scientific researches, culture and history. They have witnessed historic development and are another style of representation and carrier for the nation, religion, culture and folk-custom. Therefore, they are "living specimen" for scientific researches, "living cultural relic" for social science researches, "living information" for life science, and "living teaching material" for China national tradition.

《Urban Greening Rules》 issued by State Department in 1992 says clearly that, "The antique and famous trees are those over 100 years old, rare and precious, or with significant value in history and commemoration." From of old, people from various minorities in Yunnan enjoy good tradition to protect, cultivate or plant trees and flowers, especially those antique and famous trees that have long history of growing and those waterhead forests. In order to protect the trees, people volunteer to lay bricks and stones, and build fences around those trees, also set up stone inscription for them.

For making those tree sources clear, Stone Forests Scenic Spots management bureau cooperated with Southwest Forestry University to unfold full researches. The research results show that there are all together 263 plants of antique and famous trees, among which, 11 plants belong to first grade in antique trees, 29 second—grade, and 192 third—grade. In addition, 29 plants kept in mothballs and 2 famous trees. The above trees respectively belong to 25 families, 41 genus and 48 species. The research and analysis are also made on trees' distribution, growth, and management.

We sorted the data and compiled the book based on the above results. The whole book is divided into four parts: the first part covers general situation on Stone Forests Scenic Spots, introducing its natural background and resources; the second part covers the analysis on the antique and famous trees in Scenic Spots; the third part covers the main features of 14 species and their status, moreover, each species is attached to colorful picture; the fourth part is the survey table on the antique and famous trees, which records the details for each trunk of three for tree reference.

The research and book's publishing are funded jointly by Stone Forests Scenic Spots management bureau and key-building subject "landscape plants and ornamental horticulture" at provincial-level in Southwest Forestry University. Director general Li Zhengping, sub-director, Feng Zhengqing from Stone Forests Scenic Spots management bureau and Professor Fan Guosheng, Dean of the Faculty of Landscape Architecture, Southwest Forestry University, took much Supporting and guiding for the leader-group, and guide the research, which smoothen the whole process of book's development and production.

Prof. Deng Lilan etc are the editor in chief, took part in the research and compiling this work. Dr. Fan Guosheng, Associate director of China Dendrology Academy, Professor of Southwest Forestry University checked and approved the book.

The book would be useful for research workers in landscape, tourism, forestry, biology etc. fields and also help students in relevant speciality for reference.

Due to limited time and knowledge, there may be mistakes and inappropriate places, we will be grateful for the precious suggestion and correction from our readers for book's further improvement.

Please contact us on Deng Lilan lilandeng1962@yahoo.com.cn



Autumn scene in Stone Forest Scenic Spot 石林景区秋景



Stone Forest Spectacle——A Shi-ma natural statue

石林奇观——阿诗玛天然塑像



Thick and fast tourists in Stone Forest Scenic Spot

石林景区游人如织

石林风景名胜区概况



小石林景区中的毛叶合欢古树

Albizia mollis antique tree in Minor Stone Forest District



维则乡水源林一角 A corner of waterhead forest in Weize Village



石林景观——仙人赴会
Scenery in Stone Forest——celestial being attending a meeting

1 自然条件

石林风景名胜区是世界地质公园,国家 4A 级旅游景区,在全国乃至全球享有盛名。本景区位于昆明市石林彝族自治县境内,总面积达 350 平方千米,是低纬度、高海拔的云南高原中部的一部分,海拔 1625~1900 米。风景区地形地势为北高南低、东高西低,中部巴江水流形成较深的河谷;其余地区则散布着起伏的丘陵和裸露的岩溶地貌。通常丘陵小山上长有云南松等森林,山脚平地为村庄和农田。风景区内规模宏大,造型雄奇的岩溶地貌和溶洞、湖泊、瀑布、地下暗河、良好的植被,构成了景区丰富多姿的自然景观。

风景区气候宜人,四季如春,年平均气温 15.5℃。最冷月份为 1月,平均气温 8.2℃。最热月份为 7月,平均气温 20.8℃。年降雨量平均 946 毫米,主导风向为西南风和南风,平均风速为 3.13 米 / 秒。全年无霜期 252 天,日照充沛,年平均 2318 小时。

景区内无扬沙、尘暴、龙卷风等破坏性气候情况,大 气无污染,能见度极高,达到联合国推广的清洁区标准。 景区内地下水资源丰富,水质良好,适于饮用。

2 资源条件

2.1 景观资源

石林风景名胜区的地表岩溶景观规模宏伟、造型神奇,世界独一无二。

2.2 民族文化资源

石林风景区彝族撒尼人悠久的文化历史,造就出灿烂的民族文化,优美的文学遗产,欢悦活泼的民族歌舞,绚丽的手工艺品和多姿多彩的民族节日活动,构成了景区与众不同的人文景观。

2.3 植被资源

风景区森林植被良好,森林覆盖率相对于世界岩溶 地貌地区具有极高的比例,这些得天独厚的自然优势,为 古树名木的生长和繁育提供了良好的条件。

独特的地质地貌及其自然条件,发育着具有代表性的自然植被,本景区的主要植被包括滇青冈、云南润楠、 栓皮栎、旱冬瓜、云南松、云南油杉、皮哨子、黄连木、清香木、白刺花等主要树种组成的森林类型。

Brief Introduction on Stone Forests Scenic Spots

1 Natural Background

Stone Forest Scenic Spots is the world geologic park. It lists on national Graded-4A tourist attraction and enjoys great reputation in the world. The spot lies in Shiling Yi minority county (Stone Forest county) and its total area is up to 350 km², is one part of low-altitude, high-latitude Yunan Plateau, with alt.1625~1900m. The spot topography descends from north to south, from east to west. Ba River pass in the middle shaped into relatively deep river valley. Other regions are scattered with wavy hills and bare karst landform. Hills are usually covered by forests of Pinus yunnanensis. Villages and farmland lie on Mountain foot. The magnificent scale and great karat sculpt with dissolved cavern, lakes, waterfall, underground river, good vegetation made up diversiform and beautiful natural scenery.

The spot enjoys pleasant weather, spring-like throughout the year. The average temperature is at 15.5℃ and January



A corner in Large Stone Forest District 大石林景区一角



Pine forests contracting against Stone Forest 松林与石林相互映衬



Autumn scene in Stone Forest 石林秋色



Lifelike natural statue 天然石雕惟妙惟肖

is the coldest month with average temperature of 8.2°C while July is the hottest month with average temperature of 20.8°C. Leading wind direction is southwestern and southern wind with the average speed at 3.13m/s. The frost-free period lasts 252 days in a year. It also enjoys abundant sunlight with annual average 2318 hours a year. The spot is free of sandstorm or tornado etc. destructive weather. The air isn't polluted and has high visibility up to the clear region standard generalized by the United Nation. The abundant groundwater resource has good quality for drinking.

2 Resources Condition

2.1 Scenery Resource

The unique karst landscape features its magnificent and strange scenery, also perilous and secluded sculpt.

2.2 National and cultural Resource

Yi Sani people enjoy long history of culture and built up unique human landscape with magnificent national culture, graceful literature heritages, vigorous and living national songs and dances, gorgeous handiworks, colorful national activities in festivals.

2.3 Vegetation Resource

The spot remains good forests vegetation with rather high forest coverage compared with other karat regions in the world. These nature advantages provide the growth and breeding of the trees with good conditions. Peculiar geology and landform, and other natural conditions features these typical and representative natural vegetation that mainly include all kinds of forest types made up of Cyclobalanopsis glaucoides, Machilus yunnanensis, Quercus variabilis, Alnus nepalensis, Pinus yunnanensis, Keteleeria evelyniana, Sapindus delavayi, Pistacia chinensis, Pistacia weinmannifolia, Sophora davidii etc. main tree species.



The tour guide is taking pictures for torurists 导游在为游客摄影留念



Sani people's embroidery with national characteristic 颇具民族特色的撒尼人刺绣

石林风景名胜区古树名木分析

2001 年始,世界有关机构开始组织在全球范围内开展古树名木普查建档工作,要求形成完整的古树名木的资源档案,并实行计算机动态监测管理。我国于上世纪末就已开始这项工作,组织了全国古树名木调查,云南省已出版《云南名木古树》等著作。

对石林风景名胜区的古树名木调查也是世界古树名木研究的一部分和石林风景名胜区提高品质的重要内容。

1 调查结果

本次调查,将石林风景名胜区的古树名木分为五棵树村(A),大石林(B),清水塘村(C),长湖(D),维则村(E),乃古石林(F)六个调查区域,并分别对每一分区进行调查,共获得261株古树及2株名木或有望成为古树的后备古树资源,分别属于25科41属48种,古树主要以黄连木、皮哨子、云南松、清香木为主,其次为香樟、川梨、合欢、香椿、流苏、槲栎、漆树、枇杷、苦楝、 板栗、云南油杉、君迁子等;古藤有五加科的常春藤,蝶形花科的香花崖豆藤,夹竹桃科的贵州络石等;名木2株为樟科润楠属的云南润楠(详见表一,表二)。

调查过程中,分别对上述 263 株古树名木进行每木检尺,测其胸径,树高,冠幅,用 GPS 对每一株树的位置、海拔高度进行定位,并对每株古树的生境、生长状况等进行详细记载,最后将每一棵树编号。年龄的测定用生长锥结合访问调查及查阅相关资料而确定。

根据调查结果,石林风景区属于国家一级(500年以上)的古树有 11株,国家二级(300~499年)的古树有 29株, 国家三级(100~299年)的古树有 192株,后备(70~100年)的古树有 29株,名木 2株(见表一)。

2 分布状况

在访问及调查的过程中了解到:古树名木除了在风景名胜区得以保存外,大都因各种神话和传说而被人们以"密枝林"、"神树"、"龙树"、"风水树"等形式保存于水源地或村寨之中,其中,大石林有古树 81 株,分别属于 18 科 28 属 33 种;长湖有 31 株,分别属于 4 科 5 属 5 种;五棵树村有 40 株,分别属于 5 科 5 属 6 种;清水塘村有 47 株,分别属于 3 科 4 属 5 种;维则村有 62 株,分别属于 10 科 15 属 15 种;乃古石林 1 科 1 属 1 种。从年龄结构上看,从后备古树到一级古树(年龄 70~800 年)均有。在五棵树村就有一株被称为"神树"的黄连木,高达 18 米,迄今已有 240 多年的历史。维则村的水源林(撒尼人称"密枝林")保存至今的古树多达 33 株,其中一株皮哨子的胸径达 118 厘米,树龄450 多年,一株黄连木的胸径达 102 厘米,高达 18 米,树龄 350 多年,一株合欢胸径达 140 厘米,高 17 米,树龄250 多



傍晚的石林显得更加神秘
Stone Forest looks more mysterious when nighfall

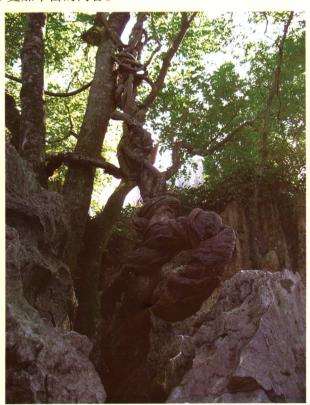


年。维则村中一株黄连木古树胸径达 200 厘米,高达 25 米, 树龄 750 多年,这是石林风景名胜区中年龄最大,且生长颇 为旺盛的一株古树。

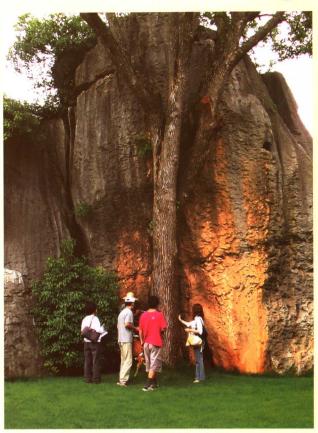
3 景观效果评价

特殊的地质地貌和自然环境,造就出独特神奇的自然 景观,同时也塑造出与众不同的树木形态,形成了独特的景 观,是一类很好的潜在资源,石林风景名胜区内的古树古藤 也呈现出千姿百态和奇特的形态和面貌:一株树龄为200 多年的君迁子一分两干,高达25米,刚劲挺拔;200多年树 龄、高达25米、一分三干的毛叶合欢则从谷底直冲山巅,其 冠幅达600平方米,枝繁叶茂,遮天闭日,郁郁葱葱;而一株 胸径为22厘米,已跨越800年时空的香花崖豆藤,在离地 面一米处,挽了一个同心结后直上云霄;已度过600载春秋 的中华常春藤则以无以数计的藤蔓布满山崖,繁茂的藤叶 覆盖着整面山体坡面的上部,十分壮观……如果说:"石令 人古",那么这些古树就是古老岁月的见证,它们与石林相 伴相生,静观着石林沧桑变化,像似经历岁月洗礼的老人, 那粗糙深裂的树皮,伸展至天空的虬枝,那因为某一天遭到 打击而留下来的枯杆, 以及枯木逢春的喜悦诉说着上百年 的故事,只要用心体会,谁都能理解,这是任何小树都无法 企及的,它们是岁月的积淀和人类的财富。

古树与石林的相依为命,已存在了成百上千年,它们像是亲密的朋友,在风雨中并肩作战,在烈日中相互慰问,在微风中轻轻诉说。树因为石而坚韧,石因为树而有生机,是古树,是顽石,谱写了石林的美景,使这里的古树名木与当地自然景观形成了不可分割的整体,为石林风景名胜区增加了更加丰富的内容。



酷似"同心结"的香花崖豆藤年代久远 Long-lived *Millettia* dielsiana shaped like true-lover's knot



考察组成员在为樟树调查数据
Members in research group are measuring various data for Cinnamomum camphora



用生长锥为古树测定年龄
Members in research group are measuring the age for antique tree by the increment borer

Analysis on the antique and famous trees in the Spot

Since 2001, world's relevant constitutions began the general survey and filed the antique and famous trees in the whole world. It aims at shaping full resource files on those trees and realizing dynamic monitoring by computers. China began the work at the end of the last century and organized national antique and famous trees research. Yunnan has published (antique and famous trees in Yunnan) etc. books. The research carried out in Stone Forest Scenery Spot can also be part of world research and important content to improve Spots attraction.



Waterhead forest's antique trees called by Sani people as "flourish branches forests"

被撒尼人称为"密枝林"的水源林古树群

1 Research result

The antique and famous trees were surveyed under six regions which are Wukeshu village (A), Big Stone Forest (Dashili) (B), Qingshuitang village (C), Long Lake (Changhu) (D), Weize village (E) and Naigu Stone Forest (F). The result shows that there are all together 261 plants of antique trees and 2 famous trees expected to be kept in mothball in antique reservoir. The above trees respectively belong to 25 families, 41 genus and 48 species. The antique trees include mainly Pistacia chinesis, Sapindus delavayi, Pistacia weinmannifolia, Albizia julibrissin, Pyrus pashia, Toona sinensis, Chionanthus retsus, Quercus aliena, Crataegus scabrifolia, Gleditsia delavay, Toxicodendron verniciflum, Juglans regia, Eriobotrya japonica, Melia azedarach, Castanea mollissima, Keteleeria evelyniana, Pinus yunnanensis, Diospyros lotus etc. take second place; Antique vines include Hedera nepalensis var. sinensis from Araliaceae, Millettia reticulata from Fabaceae, Trachelospermum bodinierei from Apocyraceae etc.. The famous trees are Machilus yunnanensis from Lauraceae (see more details in table 1 and table 2).

During the survey, the above 263 plants of trees were individually measured. The information includes each tree's diameter in chest-height, height, crown cover. We also used GPS to make sure their accurate locations and latitudes, as well as the details on each plants' habitat, growing status etc., and finally numbered them. The age' measurement was carried out by growth cone combined with visitation, survey, and relevant information.

According to the result, There are 11 antique trees at first national level (Over 500 years old), 29 at second national level(between 300~499 years old) and 192 at third national level trees(between 100~299 years old), in addition, 27 antique trees kept in mothballs (between 70~100 years old)and 2 famous trees in Scenic spots of stone forests.(see Table 1)

2 Distribution status

During survey and visitation, we learned that besides the trees reserved in Scenic Spot, most of antique and famous trees were reserved in waterhead land and villages as the style of "branchy forests", "godlike tree", "dragon tree", "geomancy tree" etc. due to all kinds of legend and fairy tales.

In Dashilin(Big Stone Forest) there are 81 plants of antique trees, belonging respectively to 18 families, 33 genus and 33 species; In Changhu (long lake), there are 31 plants of antique trees, belonging respectively to 4 families, 5 genus and 5 species; In wukeshuchen (five-tree village), there are 40 plants of trees, belonging respectively to 5 families, 45 genus and 6 species; In Qingshuitangchen (clean pond village), there are 47 plants of trees, belonging respectively to 3 families, 4 genus and 5 species; In Weizechen (Weize village), there are 62 plants of antique trees, belonging respectively to 10 families, 15 genus and 15 species; In Naigu Stone Forest, there are 1 plant, belonging to 1 families, 1 genus and 1 species.

As to age structure, the ages from antique trees at first national level to trees kept in mothballs vary among 70~800 meeting the lowest requirement for antique trees. In five-tree Village, a plant of *Pistacia chinensis* called "god-like tree" is up to 18 meters and has over 240 years long history up till now. 33 plants of antique trees has been kept up till now in the waterhead forest (called "Branchy forest" by Sani people), among which a plant of over 450-year-old Sapindus delavayi has 118cm in chest-height diameter; a trunk of over 350-year-old Pistacia chinensis 102cm in chest-height diameter and 18-meter height; a trunk of over 250-year-old Pistacia chinensis has 140cm in chest-height diameter and 17-meter height; another Pant of over 750-year-old *Pistacia chinensis* has 200cm in chest-height diameter and 25-meter



height in Weize village and with flourishing growth, can be the oldest tree in Scenic Spot.

3 Scenery Evaluation

Special geology, landform, and natural environment built up peculiar natural landscape, meanwhile, unique trees-forms being potential resources have also shaped into special scenery. The antique trees and vines feature various forms and looks: An over 200 years old Diospyros lotus with powerful and straight trunk spreads two offsets, 25 meters high; An over 200 years old, 25-meter-highAlbizia mollis spreads three offsets and rises from the bottom of the valley up to the top of the mountain, with up to 600m² crown made up by flourish and green leaves and stretched branches, which blots out the sky and hides the earth. An 800-year-old, 25-meter-highMillettia reticulata with 22cm in chest-height diameter ties a knot at over 1-meter-high from land and then spreads straight into clouds. A plant of Hedera nepalensis var. sinensis enduring 600 years climbs over the whole cliff with a great number of vines and rattans. Its flourish leaves cover fully the upside of the whole slope, which looks rather magnificent.

As the words going "Stones make people experience history", the trees witness the old years. They grow together with Stone Forest and watch its changes over years. Like the old who has fissured bark, curling braches spreading into the sky, the withered stick damaged by an attack some other day, they have been telling an old story happened through the past centuries with pleasures as if they will revive in any springs. If you listen to them with your heart, you would understand their feelings. They are the accumulation



Research on the age of the antique vine 考察古藤年龄

settled down by years, whose deepness can never be reached by young trees, and so the fortune of the human beings. The antique trees depend on each other for hundreds and thousands of years like closet friends. They have been faced with attacks shoulder by shoulder, comforting each other under burning sun, talking to each other in gentle breeze. Trees became tougher while stones became more vigorous through the process. They make up the beautiful scenery of Stone Forest where antique trees and local natural scenery form indivisible entirety, which enrich the Scenic Spot connotation.



Pistacia chinensis antique tree has lived through 240 years offered as "immortal tree" by villagers 被村民们供奉为"神树"的黄连木古树已逾 240 年



Ehretia corylifolia firmly by Hedera nepalensis var. sinensis

被中华常春藤紧紧缠绕的厚壳树



五棵树村中被称为"神树"的黄连木 Pistacia chinensis called as "immortal tree" in Wukeshu Village



果 枝 Fruit branches

1. 黄连木(黄连茶、药木、楷树、公鸡树)

Pistacia chinensis Bunge

黄连木属 Pistacia 漆树科 Anacardiaceae 形态特征:落叶乔木;树皮呈薄片状翘裂。嫩叶有奇香,偶数羽状复叶互生,长 10~16cm,有小叶 5~7 对,小叶基部歪斜,全缘。圆锥花序,核果,卵状扁球形,红色、紫蓝色。

分布:云南全省均产;长江中下游及河北、河南、陕西、山东;菲律宾也有。

黄连木的叶秋天由绿变红,为良好的秋景 色叶树种,适应性广,生长年代长,常用作庭园 及风景树。木材可提黄色染料,材质坚硬致密, 可作家具和细木工用材,种子榨油可作润滑油 或制皂。嫩叶可代茶或当蔬菜用。

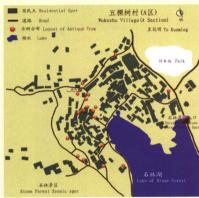
在石林风景名胜区共有黄连木古树 81 株(见表一,表二),因其叶被虫寄生后长出形状像公鸡冠的虫瘿而被当地的人们称为公鸡树。其中五棵树村的第 28 号树被当地人供为本村"神树",供祭祀用,圭山的水源林中保存有不少的黄连木。



拔地而起,直冲霄汉 Rising above the ground and climbing up the sky











Leaves with redish crista gall shaped like insects' parasitism 叶片上鲜红的鸡冠状虫瘿

Pistacia chinensis Bunge

Feature: Deciduous trees; Bark fissured into slices. Leaves even-pinnately compound, alternate, 10~16cm long, 5~7-foliolate, unique aromatic when young, leaflets oblique and entire at the base; Panicle; Drupe ovate-like compressed-globose, red, indigo.

Distribution: All regions within Yunnan province; extensively distributed and cultivated along middle and lower reach of Yangtze river and Hebei, Henan, Shanxi, Shangdong of China, as well as Philppine islands.

The leaves turn from green to red during autumn months and so the tree is widely used as colorful-foliage tree for rendering scenery in autumn. The tree has strong adaptability and grows through

ages. Therefore, it is often used in gardens or landscape settings. Yellow dye can be abstracted from its wood. Due to dense and hard quality, the timber can also be used for making furniture and fine wooden crafts. Its seed can be squeezed for oil as lubricating or soap. The tender leaves can be used as teas or vegetables.

There are 81 plants of antique *Pistacia chinensis* in Shilin (Stone Forests) Scenic Spot (see table 1 and 2). The local people call it rooster tree because its leaves look like crista gall as insects' parasitism. The 28th plant in Five–tree village has been regarded as "immortal" for fete while Pistacia chinensis trees in Guishan mountain are fountainhead forests.



分布图 (*Pistacia <mark>chinensis Maps*)</mark>

