

四川省甘孜藏族自治州野生脊椎动物识别保护丛书

四川省甘孜藏族自治州 爬行类、两栖类、鱼类

野外识别保护手册

高正发 彭基泰 主编

A Guide to Identification and Conservation
of Wild Reptiles, Amphibians and Fishes
in Ganzi Tibetan Autonomous Prefecture
of Sichuan Province

Compiled by Gao Zhengfa & Peng Jitai



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英文翻译：张江陵

藏文翻译：泽仁吉美 何寿华 向 秋

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总 序

由在甘孜州工作近40年的林学、保护生物学、景观生态学知名专家彭基泰高级工程师等编著的四川省甘孜藏族自治州野生脊椎动物识别保护丛书一套三册出版了。这套手册把甘孜州现已调查研究发现的652种哺乳类、鸟类、爬行类、两栖类、鱼类等野生动物的野外鉴别特征、生物学、生态学、行为学特性、受威胁现状、保护管理和合理开发利用前景等作了全面、科学系统的论述，图文并茂、中英文对照，学术性和实用性兼容，是一套对我州开展野生动物保护管理、自然保护区建设、科研教学有指导意义的好工具书。

甘孜州特殊的地理位置和丰富多样的气候、地形地貌、森林植被类型，孕育了丰富的生物多样性，是一个生物多样性宝库，加之藏族农牧民有保护有生命物种的传统，使我州的野生动物资源种类多，野外还能见到成群甚至上百只的白唇鹿、岩羊、白马鸡等高原特有的野生动物，这是给人类做出的巨大贡献，也为甘孜州开展野外野生动物科考和旅游观光提供了资源。

野生动植物保护及自然保护区建设是国务院批准的林业六大重点工程之一。这套手册给我们做好该项工程提供了基础性研究资料，汇总了我州100余年的研究成果，为我州的生态环境保护和经济社会全面协调可持续发展提供了重要文献。我向参与编著这套手册的专家和四川科学技术出版社表示衷心的感谢！

四川省甘孜藏族自治州州长

2005年5月4日

龙斯丹



General Preface

Senior Engineer Peng Jitai is a well-known expert on forestry, protection biology and landscape ecology, working in Ganzi Prefecture for almost forty years. A Series of Books on Identification and Conservation of Wild Vertebrates in Ganzi Tibetan Autonomous Prefecture of Sichuan Province complied by him and other famed experts are now about to be published. This set of three guides treats of 652 species of mammals, birds, amphibians, reptiles and fishes found in Ganzi Prefecture, describing their biologic and ecological features, behaviour traits and threatened status, and making a scientific and detailed discussion on their conservation and rational application. And the guides are also very good in pictures and Chinese and English texts and have both scholarly and practicability, thus being a set of directive reference books for the conservation of wildlife, the development of nature reserves, and scientific research and education work in Ganzi Prefecture.

Because of its specific geographical position and various kinds of climate and landforms and varied types of forest and vegetation, Ganzi Prefecture has become a biodiversity treasurehouse. In addition, Tibetan people has a tradition of protecting living species, therefore fostering plenty of species of wildlife resources in Ganzi Prefecture. At present, groups of, even up to a hundred, wild animals peculiar to the plateau such as Thorold's deers, blue sheep, white eared pheasants and so on can still be seen in the open country in our Prefecture. And therefore, the conservation of wildlife in Ganzi Prefecture is to make a contribution to mankind, and at the same time also provides resources for scientific research on wildlife and tourism in Ganzi Prefecture.

The program of wildlife conservation and the nature reserve establishment is one of Six State Priority Forestry Programs approved by the State Council. The guides supply us with basic research data for making a success of this program. Moreover, the guides collect research achievements gained by a great number of specialists for more than 100 years in Ganzi Prefecture, and hence provide important scientific literature for the protection of ecological environment and the harmonious and sustainable development of economy and society in our Prefecture. For this reason, I would like to express my heartfelt thanks to experts participating in the compilation of this set of guides and Sichuan Publishing House of Science and Technology.

Yao Sidan

Governor of Ganzi Tibetan Autonomous Prefecture
of Sichuan Province

4th May, 2005



序

野生动物是人类宝贵的自然财富，是大自然的重要组成部分。保护好野生动物对于维护自然生态平衡，发展国民经济，丰富人民的物质、文化、精神生活，促进国际交流和各国人民之间的友谊具有重要意义。

甘孜藏族自治州位于四川省西部青藏高原的东南缘，是青藏高原向四川盆地和云贵高原的过渡地带，横断山脉纵贯全境。地貌类型包括山地、高原、山原、高山峡谷。地形复杂多样和特殊的生态地理区域，形成了该区丰富的野生动物资源。仅脊椎动物就有652种，占全省脊椎动物种数的52%，其中两栖类30种，占全省两栖类种数的31%；爬行类31种，占全省爬行类种数的36%。其模式标本产地在甘孜州的14种；分布于甘孜州的特有种5种，可见甘孜州两栖爬行动物在四川全省两栖爬行类中的重要位置。

1988年11月国家公布了《中华人民共和国野生动物保护法》，1990年1月四川省公布了《四川省〈中华人民共和国野生动物保护法〉实施办法》，国家和四川省野生动物主管部门制定了相应的配套法则。为了使这些资源得到有效地保护，适应甘孜州野生动物保护管理工作的需要，本书作者编写了《四川省甘孜藏族自治州爬行类、两栖类、鱼类野外识别保护手册》，这是一部图文并茂的工具书，能使广大读者在实际工作中，通过实物标本和彩图与文字对照，即可查出该种动物的中名、英名、拉丁学名，同时知道该物种的形态特征、习性、栖息环境、产地，可供野生动物保护管理、科研、司法、教学等工作人员识别参考。相信本书的编写出版，定能将甘孜州的野生动物管理和保护工作提升到一个更高的水平！

本书主编彭基泰先生长期在甘孜州从事林业及野生动物保护工作，热爱事业，忠于职守，退休之后，仍不忘将自己的经验总结在书中，为后来者参考，精神难能可贵！高正发先生在四川省从事教育工作多年，热爱两栖爬行动物，退休后仍孜孜不倦为野生动物保护事业努力，令人钦佩。值此书完成出版，乐为之序！

中国科学院院士
中国科学院成都生物研究所研究员 彭基泰
2005年8月于成都

高正发



Preface

Wildlife is a precious natural wealth of mankind and also is an important component of nature. The appropriate conservation of wildlife is of great significance to developing national economy, enriching people's material and cultural life and promoting international exchanges and friendships.

Lying on the southeast edge of the Qinghai-Tibet Plateau in western Sichuan, Ganzi Tibetan Autonomous Prefecture is a transitional zone of the Qinghai-Tibet Plateau towards the Sichuan Basin and the Yunnan-Guizhou Plateau. Within its boundaries extend the Hengduan Mountains from north to south. Its topographical types include mountainous areas, plateaus, alpine plains, high mountainous and deep valleys. Owing to its complex and varied terrains and special ecological geographical environment, Ganzi Prefecture is blessed with plenty of wildlife resources. There are 652 species of vertebrates found within its boundaries, accounting for 52% of the total vertebrate species in Sichuan. Among these vertebrates there are 30 species of amphibians, accounting for 31% of the total amphibians in Sichuan, and there are 31 species of reptiles, accounting for 36% of the total reptiles in Sichuan. There are 14 species whose model specimen production areas are in Ganzi Prefecture and there are 5 endemic species dispersed in Ganzi Prefecture. Thus it can be seen that amphibian and reptile animals in Ganzi Prefecture occupy an important position in amphibians and reptiles in Sichuan.

In November of the year 1988 the state issued Law of the People's Republic of China on Wild Animal Protection. In January of the year 1990 Sichuan Province Government published Regulations for Implementation of Law of the People's Republic of China on Wild Animal Protection in Sichuan. In addition, the national and provincial departments responsible for wildlife work laid down relevant supporting rules. In order to protect these resources effectively and suit the needs of wildlife conservation and management in Ganzi Prefecture, Mr. Peng Jitai et al. compiled A Guide to Identification and Conservation of Wild Reptiles, Amphibians and Fishes in Ganzi Tibetan Autonomous Prefecture of Sichuan Province. This is a reference book which is outstanding in both pictures and texts. People are able to find out, by making a comparison of wild animals in Ganzi Prefecture with the pictures and descriptive texts in this guide, their Chinese,



English and Latin names, and also know their features, habits, living environments and producing areas, thus capable of offering a reference for working personnel engaged in wildlife conservation, scientific research, justice and education.

I feel certain that the publication of this guide can upgrade the wildlife conservation and administration in Ganzi Prefecture to a higher level.

Mr. Peng Jitai, editor in chief, was engaged in the work of forestry and wildlife conservation in Ganzi Prefecture for a long period of time, loving the cause and doing his duty faithfully. And after his retirement, he has not forgotten to summarize his experience in the guide, aiming to provide reference for later comers. This kind of spirit is rare and commendable.

Mr. Gao Zhengfa devoted himself to teaching work in Sichuan Province for many years, having a deep love for amphibians and reptiles. After retiring, he still made an effort assiduously for the protection of wildlife, hence being worthy of admiration.

At the time of the completion and publication of this guide, I am very glad to write this preface.

Zhao Ermi

Academician of Chinese Academy of Sciences
Research Fellow of Chengdu Institute of Biology
of Chinese Academy of Sciences

August 2005, in Chengdu



前言

甘孜藏族自治州幅员辽阔，地形复杂，按动物地理区划属古北界、中亚亚界、川西北高山高原省，是四川西部生态区的重要组成部分。由于独特的地理条件，不但蕴藏着丰富的野生动物资源，而且还是许多种的模式标本产地及特有种的分布地，历来为国内外学者所瞩目。

为贯彻《中华人民共和国野生动物保护法》，适应我国野生动物保护管理工作的需要，我们编写了中英文对照、图文并茂的《四川省甘孜藏族自治州爬行类、两栖类、鱼类野外识别保护手册》，供广大野生动物保护、管理、科研、教学、自然保护区管理、执法、环境保护等有关部门和单位的工作人员参考。

两栖爬行动物在控制虫害、鼠害，保证农、林、牧业增产丰收，维护自然生态平衡及其生物多样性的保护上提供了极其重要的信息。所以，保护好这些物种，无论在经济上和科学研究上都有重要意义。

关于甘孜州的鱼类、两栖类和爬行类的调查研究始于19世纪末，至今已有100余年，但上世纪30年代以前基本上由外国人在调查研究，命名了一些动物的新种。20世纪30年代起，我国学者刘承钊、张明俊、郭友文等先后到甘孜州各县考察两栖爬行动物，1961年刘承钊、胡淑琴主编《中国无尾两栖类》一书记载甘孜州8种两栖动物。20世纪70年代起赵尔宓、吴贯夫等先后多次到甘孜州对两栖爬行动物的核型和区系分类进行全面研究，并发表了4个新种，写出多篇学术论文。2003年，赵尔宓主编《四川爬行类原色图鉴》一书，记载甘孜州爬行动物26种。我们这次编著的这本手册是在上述专家在甘孜地区调查研究所取得的成果的基础上完成的。

编著本书过程中，承赵尔宓院士作序，审阅资料，提供部分爬行动物照片；吴贯夫先生提供两栖动物照片；巫嘉伟专程到巴塘采集巴塘攀蜥，才有巴塘攀蜥的描述资料和照片，孙炯协助采集九龙湾坝大凉疣螈，陈显康协助采集丹巴的两栖爬行动物标本，谨在此一并致谢。

因水平和资料有限，错漏难免，敬请指正。

高正发

2005年8月



Foreword

With a vast territory and a complex topography, Ganzi Tibetan Autonomous Prefecture is an important component part of the western ecotype in Sichuan Province, and belongs to the Palaearctic realm and the Midasian subrealm according to its geographic division. Because of its distinctive geographic conditions, it boasts plenty of wildlife resources, and also is an area producing model specimens of many species and a distribution land of endemic species, thus always attracting domestic and foreign scholars' attention.

For the purpose of implementing Law of the People's Republic of China on Wild Animal Protection and meeting the needs of wildlife protection work, we compiled *A Guide to Identification and Conservation of Wild Reptiles, Amphibians and Fishes in Ganzi Tibetan Autonomous Prefecture of Sichuan Province*, which is interspersed with very good pictures and texts including some English translations, aiming to furnish a reference book for working personnel in the departments and units concerned in wildlife protection, management, scientific research, education, justice, etc.

Amphibians and reptiles can provide a very important information for the control of insect and rat plagues, the guarantee of increasing production of agriculture, forestry and animal husbandry, the maintenance of natural ecological balance and the protection of biodiversity. As a result, the good conservation of these species is of great significance to both the economic development and scientific researches.

Investigations on reptiles, amphibians and fishes in Ganzi Prefecture began at the end of the 19th century, and have lasted for more than 100 years up to now. And yet before the thirties of the 20th century investigation work was basically done by foreigners, and a few new animal species were designated. From the thirties of the 20th century, Chinese scholars such as Liu Chengzhao, Zhang Mingjun and Guo Youwen successively went to each county of Ganzi Prefecture for inspecting amphibians and reptiles. And in the year 1961, Liu Chengzhao and Hu Shuqin edited *Tailless Amphibians in China*, in which eight species of amphibians in Ganzi Prefecture are recorded. In the seventies of 20th century Zhao Ermi and Wu Guanfu visited Ganzi Prefecture many times for making an overall research on the caryogram and faunal classification of



amphibians and reptiles, published four new species and wrote many academic theses. In 2003, Zhao Ermi edited *Colored Atlas of Sichuan Reptiles*, in which 26 species of reptiles in Ganzi Prefecture are recorded. It can be said that this guide was completed on the basis of investigation achievements gained by the above-mentioned experts.

In process of compiling this guide, we are indebted to Mr. Zhao Ermi, Academician of Chinese Academy of Sciences, for his writing the preface, reading through the data and supplying a part of reptile pictures. In addition, Wu Guanfu examined amphibian data and provided some amphibian pictures. And also Wu Jiawei paid a special trip to Batang County to collect *Japalura batangensis* so that we got its descriptive data and picture, Sun Jiong gave assistance to collecting *Tylototriton taliangensis* in Wanba Township of Jiulong County, and Chen Yukang provided help to collecting amphibian and reptile specimens in Danba County. For these help and support, we extend our heartfelt thanks to them.

However, as the editors are limited in knowledge and data, mistakes or omissions can hardly be avoided in this guide, we humbly request your advice.

Gao Zhengfa

August 2005



目 录

总序
序
前言

总 论

一、自然概况·····	3
二、社会经济条件·····	4
三、研究简史·····	4
四、动物地理区划及特点·····	8
五、保护管理和合理利用·····	10

各 论

上 编 爬行类

一、爬行类的特征·····	20
二、甘孜州爬行类分种记述·····	21
I 有鳞目 Squamata ·····	21
I-A 蜥蜴亚目 Lacertilia (Sauria) ·····	21
(一) 鬣蜥科 Agamidae·····	21
1. 巴塘攀蜥 <i>Japalura batangensis</i> Batang Japalure ·····	21
2. 草绿攀蜥 <i>Japalura flaviceps</i> Yellow-headed Japalure ·····	22
3. 丽纹攀蜥 <i>Japalura splendida</i> Splendid Japalure ·····	23
(二) 石龙子科 Scincidae·····	24
4. 大渡石龙子 <i>Eumeces tunganus</i> Tung River Skink·····	24
5. 山滑蜥 <i>Scincella monticola</i> Mountain Smooth Skink·····	25
6. 康定滑蜥 <i>Scincella potanini</i> Kangding Smooth Skink·····	26
7. 铜蜓蜥 <i>Sphenomorphus indicus</i> Indian Skink·····	27



I-B 蛇亚目 Serpentes (Ophidia)	28
(一) 游蛇科 Colubridae	28
8. 黑脊蛇 <i>Achalinus spinalis</i> Common Burrowing Snake	28
9. 锈链腹链蛇 <i>Amphiesma craspedogaster</i> Brown-chain Keelback	29
10. 棕网腹链蛇 <i>Amphiesma johannis</i> Brown Net-work Keelback	30
11. 八线腹链蛇 <i>Amphiesma octolineatum</i> Eight-lined Keelback	31
12. 赤链蛇 <i>Dinodon rufozonatum</i> Red Banded Snake	32
13. 双斑锦蛇 <i>Elaphe bimaculata</i> Twin-spotted Rat-snake	33
14. 王锦蛇 <i>Elaphe carinata</i> Keeled Rat-snake	34
15. 白条锦蛇 <i>Elaphe dione</i> Dione Rat-snake	35
16. 横斑锦蛇 <i>Elaphe perlacea</i> Pearl-banded Rat-snake	36
17. 黑眉锦蛇 <i>Elaphe taeniura</i> Striped-tailed Rat-snake	37
18. 黑背白环蛇 <i>Lycodon ruhstrati</i> Mountain Wolf-snake	38
19. 横纹小头蛇 <i>Oligodon multizonatus</i> Many-banded Kukri Snake	39
20. 大眼斜鳞蛇 <i>Pseudoxenodon macrops</i> Big-eyed Mountain Keelback	40
21. 滑鼠蛇 <i>Ptyas mucosus</i> Common Rat-snake	41
22. 缅甸颈槽蛇 <i>Rhabdophis leonardi</i> Leonard's Grooved-neck Keelback	42
23. 九龙颈槽蛇 <i>Rhabdophis pentasupralabialis</i> Five Upper-labial Grooved-neck Keelback	43
24. 黑头剑蛇 <i>Sibynophis chinensis</i> Black-headed Snake	44
25. 温泉蛇 <i>Thermophis baileyi</i> Hot-spring Keel-back	45
26. 乌梢蛇 <i>Zaocys dhumnades</i> Big-eye Rat-snake	46
(二) 蝰科 Viperidae	47
(1) 白头蝰亚科 Azemiopinae	47
27. 白头蝰 <i>Azemiops feae</i> Fea's Viper	47
(2) 蝮亚科 Crotalinae	48
28. 高原蝮 <i>Gloydus strauchi</i> Kham Plateau Fu	48
29. 山烙铁头蛇 <i>Ovophis monticola</i> Mountain Pit-viper	49
30. 菜花原矛头蝮 <i>Protobothrops jerdonii</i> Jerdon's Pit-viper	50
31. 乡城原矛头蝮 <i>Protobothrops xiangchengensis</i> Kham Plateau Pit-viper	51



三、甘孜州爬行类新种（模式标本）发表的刊物·····	52
四、甘孜州爬行类地理分布名录·····	54

中 编 两栖类

一、两栖类的特征·····	56
二、甘孜州两栖类分种记述·····	57
I 有尾目 Caudata (urodela) ·····	57
(一) 小鲵科 Hynobiidae ·····	57
1. 无斑山溪鲵 <i>Batrachuperus karlschmidtii</i> Karlschmidt's Mountain Salamander·····	57
2. 山溪鲵 <i>Batrachuperus pinchonii</i> Common Mountain Salamander·····	58
3. 北方山溪鲵 <i>Batrachuperus tibetanus</i> Northern Mountain Salamander·····	59
(二) 蝾螈科 Salamandridae ·····	60
4. 大凉疣螈 <i>Tylototriton taliangensis</i> Meeting. Daliang Newt·····	60
II 无尾目 Salientia (anura) ·····	61
(三) 角蟾科 Megophryidae·····	61
5. 沙坪无耳蟾 <i>Atympanophrys shapingensis</i> Earless Horned Toad ·····	61
6. 宽头短腿蟾 <i>Brachytarsophrys carinensis</i> Big-headed Short-legged Toad·····	62
7. 小角蟾 <i>Megophrys minor</i> Little Horned Toad ·····	63
8. 大齿蟾 <i>Oreolalax major</i> Large Toothed Toad ·····	64
9. 乡城齿蟾 <i>Oreolalax xiangchengensis</i> Xiangcheng Toothed Toad ·····	65
10. 西藏齿突蟾 <i>Scutiger boulengeri</i> Tibetan Rudimental-toothed Toad ·····	66
11. 胸腺齿突蟾 <i>Scutiger glandulatus</i> Chest-gland Rudimental-toothed Toad ·····	67
12. 花齿突蟾 <i>Scutiger maculatus</i> Maculate Rudimental-toothed Toad·····	68
13. 刺胸齿突蟾 <i>Scutiger mammatus</i> Spine-chest Rudimental-toothed Toad ·····	69
14. 皱纹齿突蟾 <i>Scutiger ruginosus</i> Rugose Rudimental-toothed Toad·····	70
15. 圆疣齿突蟾 <i>Scutiger tuberculatus</i> Round-warted Rudimental-toothed Toad ·····	71
(四) 蟾蜍科 Bufonidae ·····	72
16. 华西蟾蜍 <i>Bufo andrewsi</i> Andrew's Toad·····	



17. 岷山蟾蜍 <i>Bufo minshanicus</i> Mt. Minshan Toad	73
18. 西藏蟾蜍 <i>Bufo tibetanus</i> Tibetan Toad	74
19. 圆疣蟾蜍 <i>Bufo tuberculatus</i> Round-warted Toad	75
(五) 树蟾科 <i>Hylidae</i>	76
20. 华西树蟾 <i>Hyla annectans</i> West China Tree Toad	76
(六) 蛙科 <i>Ranidae</i>	77
21. 康定湍蛙 <i>Amolops kangtingensis</i> Kangding Cascade-frog	77
22. 理县湍蛙 <i>Amolops lifanensis</i> Lixian Cascade-frog	78
23. 棕点湍蛙 <i>Amolops loloensis</i> Zhaojue Cascade-frog	79
24. 四川湍蛙 <i>Amolops mantzorum</i> Sichuan Cascade-frog	80
25. 倭蛙 <i>Nanorana pleskei</i> Hengduan Mountain Plateau Frog	81
26. 双团棘胸蛙 <i>Paa yunnanensis</i> Yunnan Spiny-frog	82
27. 昭觉林蛙 <i>Rana chaochiaoensis</i> Zhaojue Wood-frog	83
28. 中国林蛙 <i>Rana chensinensis</i> Chinese Wood-frog	84
29. 无指盘臭蛙 <i>Rana grahami</i> Graham's frog	85
30. 黑斑蛙 <i>Rana nigromaculata</i> Black-spotted frog	86
三、甘孜州两栖类新种(模式标本)发表的刊物	87
四、甘孜州两栖类地理分布名录	88
参考文献	89

下 编 鱼 类

一、甘孜州鱼类资源概述	91
二、鱼类形态特征	94
三、甘孜州鱼类组成与区系分析	96
四、甘孜州鱼类分种记述	97
I 鲑形目 <i>Salmoniformes</i>	97
(一) 鲑科 <i>Salmonidae</i>	97
1. 虎嘉鱼 <i>Hucho bleekeri</i> Sichuan Taimen	97
II 鲤形目 <i>Cypriniformes</i>	98
(一) 鲤科 <i>Cyprinidae</i>	98
(1) 裂腹鱼亚科 <i>Schizothoracinae</i>	98
2. 短须裂腹鱼 <i>Schizothorax (Schizothorax) wangchiachii</i>	
Short-barbel <i>Schizothoracin</i>	98