




# BIRDS IN YUNNAN



Kunming Primate Research Center, CAS  
Kunming Institute of Zoology, CAS  
China Forestry Publishing House





江苏工业学院图书馆  
藏书章

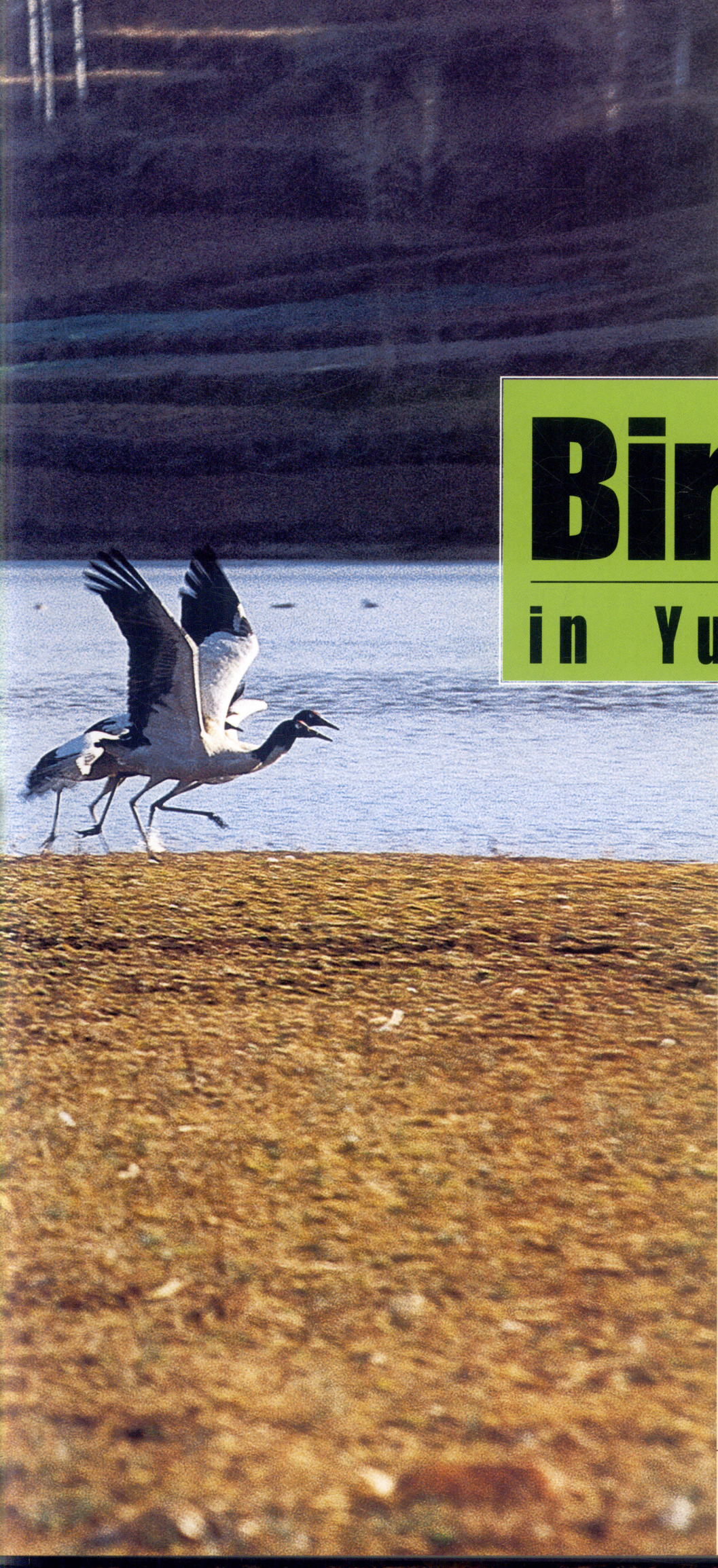
# Birds

in Yunnan









■ WEIZHI JI

# Birds

---

## in Yunnan

Kunming Primate Research Center, CAS  
Kunming Institute of Zoology, CAS  
CHINA FORESTRY PUBLISHING HOUSE



**Editor in Chief:**

*Weizhi JI*

**Deputy Editors in Chief:**

*Xiaojun YANG, Xianji WEN, Jianguo ZHU*

**Editor Board:**

*Ruichang QUAN, Xiaofeng MA, Lan YANG, Bing SU,  
Wen WANG, Rong YANG, Shuxia ZHANG, Heqi WU,  
Lianxian HAN, Wanggao JIANG*

**Planners:**

*Weizhi JI, Li CHEN*

**Executive Editors:**

*Wei LI, Mai'e JIA*

**Designer:**

*Hang BAO*

**Chief Photographers:**

*Xiaofeng MA, Jianguo ZHU*

**图书在版编目(CIP)数据**

中国云南野生鸟类=Birds in Yunnan/季维智 主编. —北京:  
中国林业出版社, 2006. 6

ISBN 7-5038-4390-X

I . 中… II . 季… III . 野生动物: 鸟类 - 简介 - 云南省 - 英文 IV . Q959.7

中国版本图书馆CIP数据核字(2006)第049338号

Copyright © 2006 by China Forestry Publishing House

All right reserved, Unless permission is granted, this material shall not be  
copied, reproduced, or coded for reproduction by any electrical, mechanical,  
or chemical process or combination there of, now known or later developed.

Printed in the People's Republic of China

Archives Library of Chinese Publications Number 2006-049338

ISBN 7-5038-4390-X

Birds in Yunnan: Ji Weizhi. 2006

I . Birds ... II . Ji ... III . Birds-summary-Yunnan Province-English IV . Q959.7

China Forestry Publishing House

7, Liuhai Hutong, West City District,

Beijing, P.R. China, 100009

E-mail: cfphz@public.bta.net.cn

Tel: 66184477

Price: RMB 280.00



这是一片驰骛着万象生灵的土地，

无边的丛林承托着鸟的飞翔。

太阳从它的尖喙上兴起，

森林覆盖了它一生的挚爱。

不灭的风中，

鸟儿恣意的梦幻、悠然的舞步，

所有的姿韵雀跃在蓝天下，

所有的渴望放飞在自由里……

这神奇多情的红土地，

分明辉映着科学探索的智慧之光；

这精彩纷呈的动物世界，

激情记述着几代科技工作者不尽的开拓。






# PREFACE

---

Academician, Vice President  
Chinese Academy of Sciences

ZHU CHEN



*One of the main tasks the Chinese Academy of Sciences (CAS) undertakes is to transmit knowledge. Since the national Knowledge Innovation Program was initiated in 1999, CAS has achieved many innovations in scientific research, transferring scientific technologies to markets and enterprises, transmitting and popularizing scientific knowledge to the public, etc. A task unparalleled in history. The Kunming Institute of Zoology (KIZ), remotely located in southwest China, is one of many institutions that has developed very quickly within the Chinese Academy of Sciences. This year, 2005, is the 45th anniversary of the founding of KIZ. Generations of scientists at KIZ strive to make great contributions to scientific, social and economic development.*

*Science and technology progresses quickly nowadays. With new theories, techniques, methods and means, continuously arising and developing, more and*





more about nature and humans is now known. The progress in biological science is the most outstanding. Humans are comprehensively exploring and uncovering the secrets of life from various aspects and levels, thus the 21st century is regarded as the century of biological science. Breakthroughs in biological science and biotechnology have consequently greatly influenced humans themselves. Meanwhile, some traditional basic subjects, e.g. taxonomy, ecology, etc. are continually advancing. A case in point is the publication of *Wild Birds in Yunnan, China*.

Yunnan, Kingdom of Animals, has distinct regional geographic characteristics, numerous species, especially many unique species, which arouse great interest among biologists, geologists and even the public. In order to explore this kingdom, researchers at KIZ have been working hard to gradually uncover the species distri-

bution and evolutionary process of this kingdom of animals, with precise and scientific attitude and systematic efforts over time. This book, a quintessential summary of decades of bird study in Yunnan, is a new publication in zoology, with many pictures, being not only academic but also of popular science.

Studies on biodiversity and conservation are necessary to implement the fundamental national policy of sustainable development. More and more, human activities are becoming one of the main reasons for accelerated loss of biodiversity. This book, of both scientific and popular interest, is significant and unique in transmitting knowledge and enhancing public conservation consciousness. Here I sincerely show my respect to the scientists at KIZ owing to their hard work and congratulate them for their accomplishments. I wish them continued achievements and innovations in the future.





# Foreword

Director,  
Kunming Primate Research Center,  
Chinese Academy of Sciences

Weizhi Ji

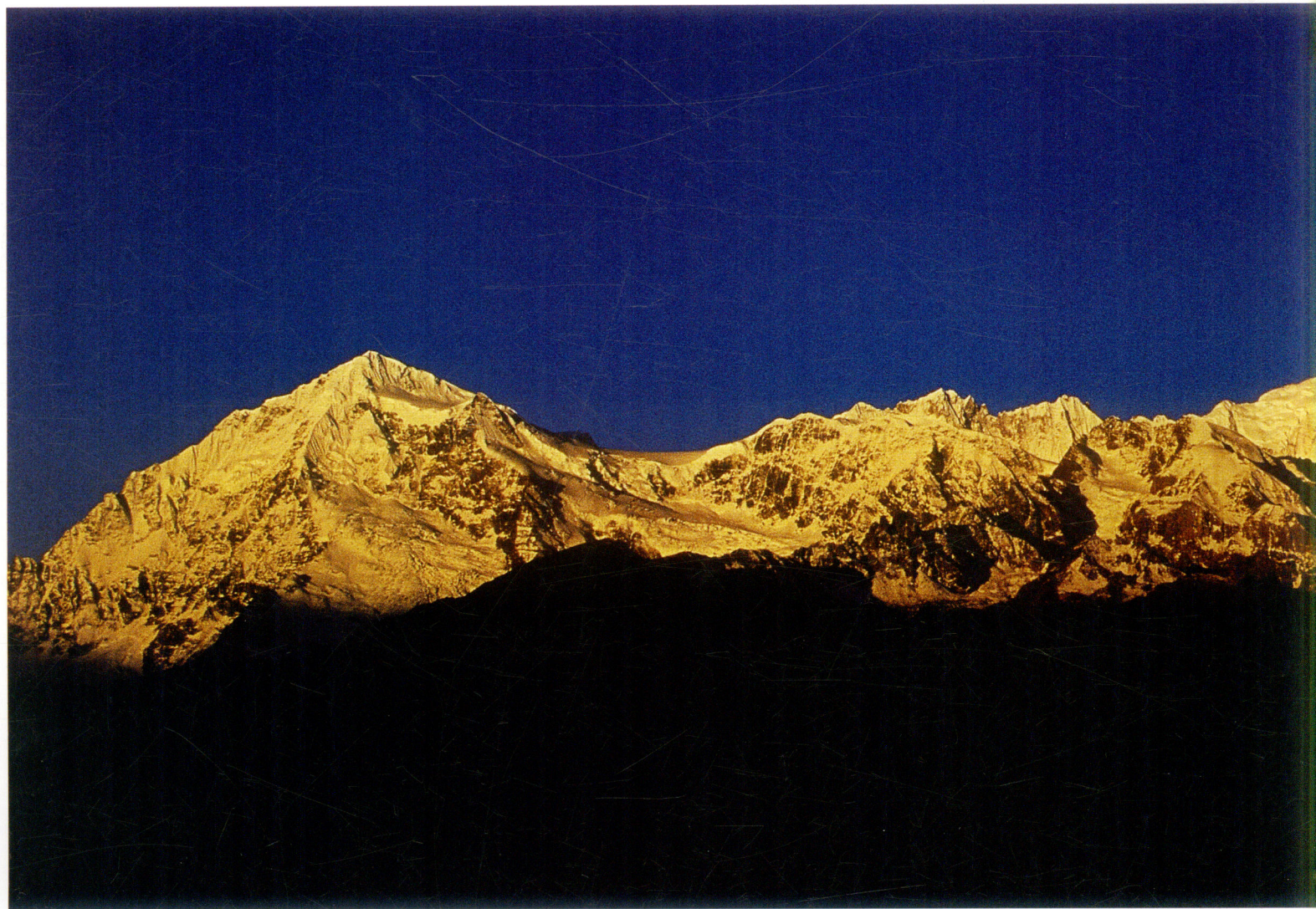


***B**irds are one of the most beautiful animal species in nature. Distributed widely with various species and ecological types, they have a close relationship with human activities and the natural environment.*

*There are 848 species of wild birds recorded in Yunnan, which makes up nearly 9% of the bird species in the world and 65.5% of those in China. Due to its typical richness in pheasant and laughingthrush species, Yunnan won the reputation as the Kingdom of the Pheasant and the Kingdom of the Laughingthrush. Among 1,294 bird species identified in China, 110 species are endemic to Yunnan. The complicated landforms, the impressive difference in vertical heights of mountains and the diverse*

*climate and vegetation types contribute to the distribution of many northern bird species in Yunnan. The Transit Himalayas in the northwest of Yunnan became not only a center of differentiation and succession for many species but also a passage of northern birds expanding their range southward and that of southern birds expanding northward. Therefore, the diversity of birds and the abundance of species is characterized by the integrated components belonging to both the northern and southern regions in the world.*

*Since the publication of *Wildlife in Yunnan* in 1999, we have been preparing for the publication of *Wild Birds in Yunnan*. In addition to numerous scientific projects on bird research, the first and second volume of *Avifauna of Yunnan* (Yang et al, 1995, Yang et al, 2004) ensured the possibility of the publication of this book. Coincidentally, it is the 45th anniversary of the establishment of Kunming Institute of Zoology, Chinese Academy of Sciences. This book is not only a present to celebrate the birthday of KIZ but also a comprehensive summary of bird research in KIZ. Furthermore, it will show the natural beauty of "South of Colorful Cloud" (the meaning of Yunnan) and the abundant diversity of birds in the "Kingdom of Animal", as well as increase the awareness of people to protect birds, cherish our living*





environment, and pay attention to the conservation of wildlife.

In this book, the natural environments and special adaptations of birds in Yunnan are introduced, including the correlation between the birds of Yunnan and the physical geography, habitats and elevations, the avifaunal composition and its formation in Yunnan, the relationship between birds and minority human populations and decades of important bird distribution regions. 419 species of birds, their habitats and life histories are described, arranged into the following six categories: waterbirds, wading birds, upland ground birds, birds of prey, tree-clinging birds, and songbirds. Other knowledge and interesting facts of these species is also provided, which makes the book both scientific and interesting to the general public. More than 600 pictures are included of many species and various habitats and landscapes in Yunnan.

The unique land formations, varied habitats types, abundant bird diversity and ethnic cultural diversity of Yunnan provide an excellent condition for scientific and cultural research on birds. However, due to low population numbers of most bird species in Yunnan, many species are only surviving in narrow, small and fragile habitats. Any natural or man-made disturbance and damage may cause the extinction of these birds.

Consequently, the conservation and management of bird species in Yunnan is faced with a great challenge, which should have the full participation of scientists and the public.

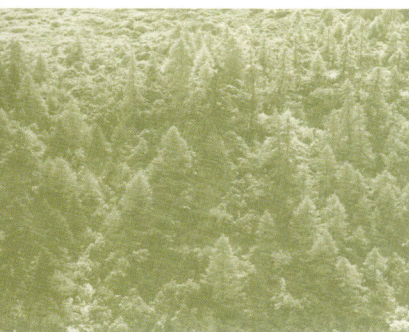
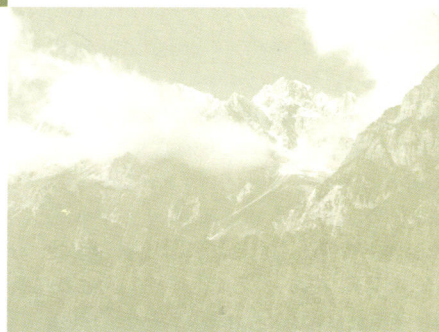
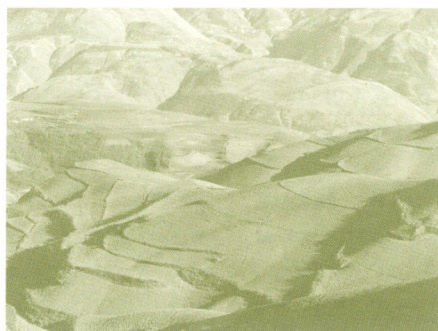
In addition to the editorial board members who contributed greatly to this book, the staff of the Kunming Institute of Zoology, and Kunming Primate Research Center, CAS, offered generous cooperation and support. Drs. Xiaojun Yang, Xianji Wen, Ruichang Quan, Heqi Wu, Shuxia Zhang and Rong Yang wrote the text of the book. Editors in the Forestry Publishing House of China worked hard on this book and recommended many of the beautiful pictures which ensured the excellent quality of this book. Also, special thanks to Mr. Tucker Gilman, Ms. Angela Kowski, who from University of Wisconsin-Madison did a lot of work to improve English writing for the book. Ms. Maureen Flannery from California Academy of Sciences also provided much valuable commentary on the book.

Our thanks are also due to Chen Zhu, academician and vice president of the Chinese Academy of Sciences, who wrote the preface for this book.

Some unavoidable mistakes and omissions most certainly have occurred during the completion and publishing of this book. Any comments and suggestions are welcome.







# CONTENTS

References	283
Index of Scientific Names	284
Index of Common Names	286
Index of Photographer	288

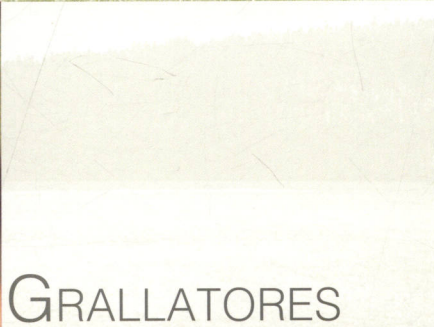




INTRODUCTION



# NATATORES



# GRALLATORES



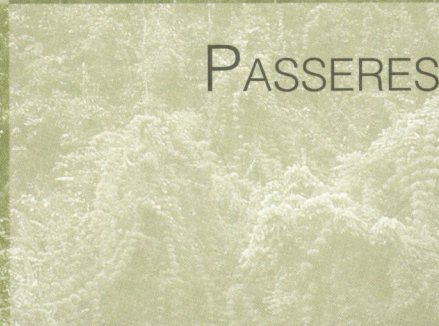
TERRESTORES



# RAPTATORES



# SCANSORES



# PASSERES





# 总述

## Introduction



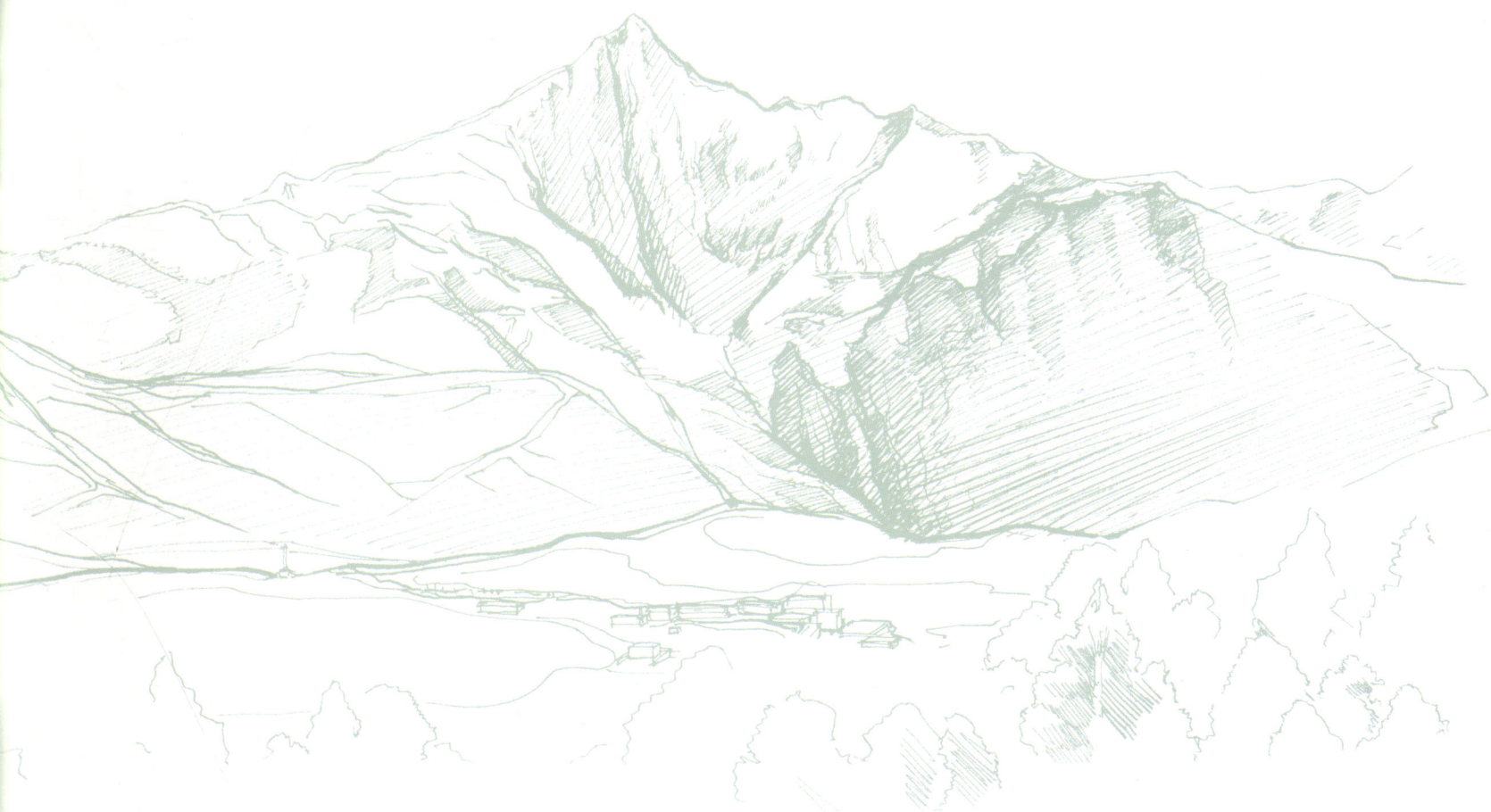
*Yunnan is located in the southwest of China, between 21°9' -29°15' N and 97°32' -106°12' E. It is the 8th largest province in China, covering 394,000 km<sup>2</sup> or 4.1 % of the country's land area. The greatest distance from north to south is 864.9km and from east to west is 990km. It shares borders with the provinces of Sichuan, Guizhou, Guangxi and Tibet in the north, east, southeast and northwest respectively, and borders Myanmar, Laos and Vietnam from west to south. About 84% of overall land area of Yunnan is mountainous. The northwest of the province is higher with a maximum elevation of 6,740 m asl., while the southeast is lower with a minimum elevation of 76.4 m asl. The topography is said to resemble a giant Chinese fan sloping down from the northwest to the southeast. Great mountain ranges such as the Gaoligong, Nushan and Yunling Mountains in the northwest parallel great rivers such as the Salween, Mekong and Yangtze. The rivers incise deeply between the mountains forming alpine gorges. In the southeast there are low mountains, hills, wide valleys, and a wide variety of karstic landforms. Yunnan province is rich in alpine lakes and other types of wetlands.*

*The climate in Yunnan varies from tropical, subtropical, and temperate to frigid due to a remarkable difference of altitudes and complicated topography. This results in widely varied environments, including tropical rain forest, subtropical forest, temperate forest and alpine grassland. Diversified and complexly structured ecosystems lead to distinguishable avian geographic zones in Yunnan, providing suitable habitat for bird diversity including some rare species. Minority groups in Yunnan, who have lived in this area for centuries, have given many birds significant cultural value.*





*BIRDS OF YUNNAN IN CHINA · INTRODUCTION*





## NATURAL ENVIRONMENT AND CHARACTERISTICS OF BIRD RESOURCES

### Special Natural Environment

Yunnan is located in an alpine mountainous zone. In the northwest, rivers and mountains create a physiognomy of alpine and gorges. Mountain ranges such as the Gaoligong, Nushan and Yunling Mountains are incised deeply by the Salween, Mekong and Yangtze Rivers which flowing from north to south in this region. These mountains and rivers form the Hengduanshan Mountain alpine and gorge zone in northwestern Yunnan, where the Three Parallel Rivers of Yunnan World Heritage Site is located. The altitude of the mountains descends gradually from the northwest to the southeast, and the topography in southeast is of low mountains, hills and wide valleys. The highest point in Yunnan, Kagerbo of Meili Snow Mountain in Deqin County, Diqing Tibetan Autonomous Prefecture, is 6,740 m asl., while the lowest point at the Nanxi River estuary in Honghe Hani-Yi Minority Autonomous Prefecture in southeastern Yunnan is only 76.4 m asl..

Yunnan sits on the Tropic of Cancer, and the weather in the province is controlled primarily by tropical and subtropical plateau monsoons. Sun is abundant all year. The parched continental monsoon prevails during the dry season and the wet ocean monsoon dominates during the rainy season, resulting in clear wet and dry seasons with slight differences in average daily temperature over the course of the year, but considerable differences in temperature over the course of a single day. Climate on the mountain peaks differs remarkably from that in the valleys. A local proverb says "there are four seasons on the same mountain at the same time, and different weather ten miles away", reflecting the obvious "vertical climate." The yearly average temperature in Yunnan varies from 4.7 to 23.7°C, varying from 19 to 22°C in the warmest month and from 6 to 8°C in the coldest month. The difference in mean daily temperature over the year

is commonly 10 to 15°C, whereas the temperature often varies as much as 12 to 20°C in a single day. The duration of frost varies from few days in areas below 1000 m asl. in the south to 210-220 days in high elevation zones such as Zhaotong and Diqing in the north. In most regions, the annual rainfall is about 1,100 mm, and 80% to 90% of the rainfall occurs from May to October.

Yunnan is famed as a "Kingdom of Plants." According to incomplete statistics, the province is home to more than 17,000 higher plant species in 2,592 genera and 426 families. This represents 48.8% of the higher plant species, 68.7% of the higher plant genera, and 88.4% of the higher plant families in China. Three major types of vegetation can be distinguished. The low latitude and altitude zones of southern and southwestern Yunnan are characterized by tropical rain forest and monsoon rain forest. Subtropical evergreen broad-leaved forest is distributed widely on most middle-height and low mountains, and has often been replaced by Yunnan pine forest, grassland, or barren earth after destruction of primary vegetation. The high latitude and altitude zones of northern Yunnan are characterized by subalpine coniferous forest with alpine dwarf shrubs and bamboo forest among the primary vegetation.

Excluding the Han, there are 25 ethnic groups living in Yunnan. These include the Yi with the largest population of about 4 million, the Bai, Hani and Dai with populations of more than 1 million each, the Miao, Lisu and Hui with populations of between 0.5 and 1 million, the Lahu, Wa, Naxi, Yao, Tibetan and Jingpo with populations of between 0.1 and 0.5 million, the Bulang with a population of 50,000 to 100,000, the Buyi, Pumi, Nu, Achang, Jinuo, De'ang and Menggu with populations of 10,000 to 60,000, and the Shui, Man and Dulong with populations of less than 10,000. The distribution of ethnic groups in Yunnan is multiplex. Some groups live in ethnically homogenous homelands, while others live in mixed groups. Some ethnic groups live only in single prefectures or counties.

*Yunnan is a mountainous province with 84% hilly land. The right is Kagerbo Peak of Meili Mountain, 6,740 meters in height and the highest peak in Yunnan.*







