



BIRDS OF THE QOMOLANGMA
NATIONL NATURE RESERVE

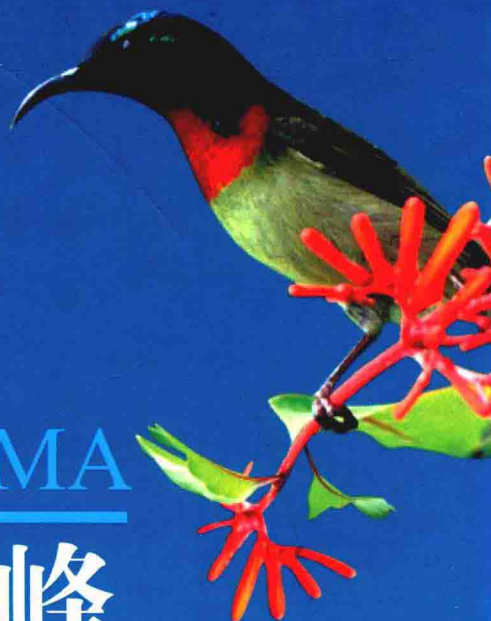
QOMOLANGMA

珠穆朗玛峰

国家级自然保护区

王斌 胡慧建 李晶晶
等 编著

鸟类



湖南师范大学出版社



BIRDS OF THE QOMOLANGMA
NATIONL NATURE RESERVE

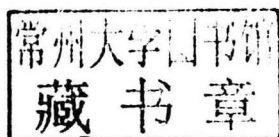
QOMOLANGMA

珠穆朗玛峰

国家级自然保护区

王斌 胡慧建 李晶晶
等 编著

鸟类



西藏自治区林业厅
珠穆朗玛峰国家级自然保护区管理局
珠穆朗玛峰国家级自然保护区野生动物资源本底调查项目
资助

湖南师范大学出版社



图书在版编目(CIP)数据

珠穆朗玛峰国家级自然保护区鸟类 / 王斌 胡慧建 李晶晶 等编著.

—长沙: 湖南师范大学出版社, 2014. 7

ISBN 978-7-5648-1770-1

I. ①珠… II. ①王… ②胡… ③李… III. ①珠穆朗玛峰—自然保护区—鸟类—介绍 IV. ①Q959.708

中国版本图书馆 CIP 数据核字 (2014) 第 177506 号

《珠穆朗玛峰国家级自然保护区鸟类》编委会名单

主 审: 马建章 金 崑 刘务林

参编人员 (按姓氏笔画为序):

田 园 左凌仁 刘金成 李小燕 李建中 拉巴次仁
莫小阳 袁倩敏 徐 健 曹天堂 曹宏芬 黄 立
黄鼎腾 彭波涌 舒 勇 谢 莉 普穷次仁

珠穆朗玛峰国家级自然保护区鸟类

王 斌 胡慧建 李晶晶 等 编著

◇责任编辑: 李文邦

◇责任校对: 蒋旭东 江洪波

◇出版发行: 湖南师范大学出版社

地址 / 长沙市岳麓山 邮编 / 410081

电话 / 0731-88853867 88872751 传真 / 0731-88872636

网址 / <http://press.hunnu.edu.cn>

◇经 销: 湖南省新华书店

◇印 刷: 长沙超峰印刷有限公司

◇开 本: 787 mm×1092 mm 1/16

◇印 张: 18

◇字 数: 350 千字

◇版 次: 2014 年 7 月第 1 版第 1 次印刷

◇书 号: ISBN 978-7-5648-1770-1

◇定 价: 80.00 元

序言 P R E F A C E

珠穆朗玛峰国家级自然保护区是世界上海拔最高的自然保护区，保护着世界上独一无二的极高山生态系统。区内的喜马拉雅高地是世界上独特的生物地理区域，是全球34个生物多样性热点地区之一，更是亚洲大陆高山鸟类的发源地。

2010—2013年间，华南濒危动物研究所、湖南师范大学及中国林业科学研究院等单位受珠峰保护区管理局委托，对辖区内的野生动物资源及其生态环境进行了系统考察。他们在国家林业局、中国林业科学院、西藏自治区林业厅、西藏林业调查规划院的大力支持与配合下，多次深入这块被视为“生命禁区”的雪域高原，克服了交通不便、语言不通、餐饮不适，特别是低海拔地区的人难以忍受的高原反应等诸多难以想象的困难，风餐露宿、披星戴月，坚持野外作业达200天之久，获得了大量宝贵的影像资料与数据，出具了详尽的珠峰保护区野生动物资源调查报告，并发表了相应的科研论文。

《珠穆朗玛峰国家级自然保护区鸟类》是这些艰苦卓越的工作成果之一。作者通过简洁的文字、翔实的数据和精美的图片，向我们展示了一个真实、完整的珠穆朗玛峰国家级自然保护区及其丰富多彩的鸟类资源，集实用性与观赏性于一体。因此，无论对于专业人士还是广大鸟类爱好者来说，这本书都是不可多得的科学资料。

随着全球气候变化和社会发展，以及当地居民生产生活方式不断改变，珠峰保护区的生态环境也在不断地随之发生变化，物种的分布与数量也将随之改变，其变化的趋势与影响备受世人瞩目。作为珠峰保护区鸟类研究的第一本专著，本书的出版不仅有助于深入研究珠峰保护区的鸟类资源现状与动态变化，为保护区的生物多样性保护、科学管理、综合科学研究以及青藏高原的环境质量监测提供依据，更将提升社会各界人士对珠峰保护区的了解和关注，对于社会力量参与珠峰的环境保护事业，起到积极的推动作用。



2014年6月 哈尔滨

中国工程院院士 东北林业大学教授

P R E F A C E

As the world's highest nature reserve, Mount Qomolangma National Nature Reserve (MQNNR) in the Tibet Autonomous Region (TAR), China is designated to protect the unique high mountain ecosystems in South Tibetan Plateau which is one of the 34 global biodiversity hotspots (Myers, 2000). This area is also the birth place for many of the Asian continent high mountainous bird species.

During 2010–2013, upon the request of the MQNNR Administrative Bureau, South China Institute of Endangered Animals, Hunan Normal University and Chinese Academy of Forestry conducted a systematical investigation on the wildlife resources and their habitats at the MQNNR. With the support from the State Forestry Administration, Chinese Academy of Forestry, Forestry Administration of the TAR, and the TAR Institute of Forest Inventory and Planning, they organized several expeditions into this “life-forbidden” snowcapped high plateau. After overcoming many difficulties in transportation, communication, and especially altitude sickness which is very hard to bear for people living at low elevations, they spent more than 200 days for extensive field work. Based on the hard obtained large number of valuable images and data, Wang Bin and his colleagues presented to the MQNNR Administration Bureau and the public a detailed avifauna survey report, which was also published in peer-reviewed scientific journals.

The book “Birds of the Mount Qomolangma National Nature Reserve” is also one of the products of their hard work. In this book, the authors show us a real and intact picture of the MQNNR and its diverse avifauna resources, with concise writings, substantial and detailed data, and gorgeous pictures. The book well blends science and nature appreciation. It can be valuable for both professional ornithologists and amateur bird watchers.

With the rapid global climate change and social development in recent decades, as well as the changing life styles of local residents, environment

of the MQNNR is also in continuous change. Species abundance and distribution of wildlife on this land are likely to change as well, with profound regional and global implications. As the first ornithological book about the MQNNR, the publication of this book is important for our better understanding of the avifauna resources and their dynamics of the MQNNR, which provides valuable information for nature reserve management, further multi-disciplinary researches, and environment monitoring of the extended Qinghai–Xizang Plateau. Moreover, it will raise public awareness of current protection status of the MQNNR, which is critical for attracting public support and participation in environment protection of this unique high land.

Professor, Northeast Forestry University
Academician, Chinese Academy of Engineering

Ma Jianzhang

Jun, 2014

前言

FOREWORDS

珠穆朗玛峰国家级自然保护区位于西藏自治区西南隅，北纬 $27^{\circ}48'$ ~ $29^{\circ}19'$ ，东经 $84^{\circ}27'$ ~ $88^{\circ}00'$ ，与尼泊尔联邦民主共和国接壤。行政上隶属定结、定日、聂拉木、吉隆四县；面积 32681.53 km^2 ，约占自治区总面积的2.6%；居民59237人，约占自治区总人口的2%。保护区成立于1989年，1994年晋升为国家级自然保护区，2004年加入世界生物圈保护区网络，是以保护极高山生态系统、高原自然景观、地史遗迹及藏族历史文化遗产为主的综合性保护区。

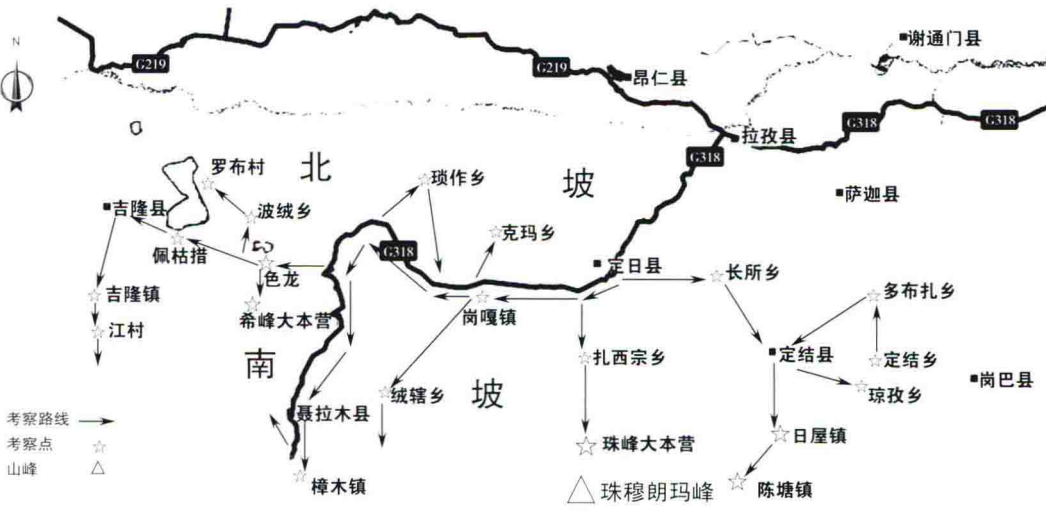
西藏境内8000 m以上的山峰共有11座，其中5座（珠穆朗玛峰、洛子峰、马卡鲁峰、卓奥友峰、希夏帮马峰）坐落在保护区内，因此珠峰地区被誉为除南极、北极之外的“地球第三极”、“生命的禁区”。然而，由于海拔、纬度、地势的关系，保护区大致上可以沿希夏帮马峰—卓奥友峰—珠穆朗玛峰—马卡鲁峰一线划分为南坡和北坡；由于受喜马拉雅山脉的阻隔，印度洋季风难以逾越，北坡和南坡呈现出两种截然不同的生态景观：南坡多南北走向河谷，坡谷陡峭，山脊与谷底的相对高差最大达7000 m以上（海拔从1440 m到8848 m）。空气含氧量较北坡为高，因受印度洋暖湿气流影响，气候较为温暖湿润，昼夜温差较小，占全区面积的14.18%；北坡则因印度洋暖湿气流难以到达，加之地势较高而平坦，海拔均在4000 m以上，气候较为寒冷干旱，昼夜温差大，空气含氧量较低，朋曲河谷东西贯穿北坡腹地，生态系统结构较为简单，占全区面积的85.82%。巨大的海拔落差，使得该区拥有我国从南到北的各种气候类型，生态系统结构复杂，垂直分带极其明显。原始的高山森林与荒漠河谷、异常丰富的生物多样性、独特的自然条件和社会习俗为该区的野生动物保护营造了良好的自然与社会环境。

鸟类是生态系统中重要成员之一，其群落结构与数量分布变化是测度生态系统状态的重要指标。新中国成立前，由于历史和地理上的原因，我国没有组织西藏鸟类研究与调查的历史记录。相反，最早进入西藏进行鸟类研究的主要是国外学者，其工作主要集中在采集标本、分类与地理分布研究方面。西藏和平解放后，针对西藏自治区的野生动物资源，新中国组织了多次考察和采集工作，其中只有两次考察比较全面地涉及现珠峰保护区范围：第一次是1960—1967年，由中科院组织的综合科学考察；第二次是1987—1990年，由自治区林业局等多家单位实施的西藏珍稀野生动物考察。尽管珠

峰地区的地理条件相当复杂、气候条件恶劣，野外工作难度极大，但这些研究还是取得了一些开拓性的成果：1972年，Vaurie在Tibet and it's birds中描述了采自珠峰地区的鸟类标本；1974年，钱燕文等在珠峰地区科考报告中对1966—1968年间鸟类考察资料进行了总结以及区系和垂直分布分析；1982年，王祖祥通过实地考察、研究西藏鸟类标本并综合有关文献，记录喜马拉雅山地区繁殖鸟18目、43科、289种，并作了鸟类区系及垂直分布分析。

随着经济建设的发展，珠峰地区受人类活动的影响日益加剧，环境和气候都发生了变化，作为全球敏感地区，其变化的趋势与影响备受世人瞩目。为了进一步摸清珠峰保护区的鸟类资源现状与动态变化，为保护区的科学管理、综合科学研究以及青藏高原的环境质量监测提供依据，2010年10月至2012年10月，受珠峰保护区的委托，由华南濒危动物研究所牵头，邀请中国林科院、湖南师范大学成立联合考察组，对珠峰保护区的野生动物资源进行了深入细致而广泛的实地考察，并针对保护区鸟类群落结构与多样性作了专题调查研究。

本次调查鉴于保护区地域辽阔，许多地方地形复杂，或被视为“生命禁区”的无人区，调查难度极大，加上调查时间有限，根据物种优先、交通方便、生境具有代表性的原则，全区选取了66条样线，样线长度达435.9 km，覆盖面积约260 km²，加上在转换调查区域路途经过或休整时考察的样线之外的调查面积，总面积达800 km²，占保护区总面积的2.45%。



珠穆朗玛峰国家级自然保护区调查路线示意图

本书正是以此次考察成果为核心内容，结合以往国内外鸟类学工作者在珠峰地区的工作积淀编纂而成，详细介绍了珠峰保护区鸟类 18 目、62 科、390 种（截至 2012 年底）。出于鸟类保护之目的，我们已经舍弃了传统的猎杀鸟类获取标本进行物种鉴定的方法，而是依据所拍摄影像资料、结合工具书对所见物种进行鉴定，主要依据《中国鸟类野外手册》（约翰·马敬能，2000 年）、《西藏鸟类志》（中国科学院青藏高原综合科学考察队，1983）、《中国鸟类志》（赵正阶，2001 年）、《西藏自治区志·动物志》（西藏自治区地方志编纂委员会，2005）、《青藏高原鸟类分类与分布》（刘迺发等，2013）。

为了便于广大鸟类爱好者便捷使用本书，在物种描述中简化、略去了有关量度、解剖方面的文字，保留了外形、大小、色斑方面的形态描述。有关物种的中文名、英文名、拉丁名以及编排顺序，依据《中国鸟类分类与分布名录》（郑光美，2011 年）。

由于时间仓促、水平有限，谬误之处在所难免，敬请各位读者见谅、斧正，以期再版时更正、完善。

编者

2014 年 6 月

FOREWORDS

Located in Southwestern Tibet, China, and bordered the Federal Democratic Republic of Nepal, Mount Qomolangma National Nature Reserve (MQNNR) (27°48'—29°19'N, 84°27'—88°00'W) includes a large wilderness area of about 32681.53 km² (~2.6% of the total land area of the Tibetan Autonomous Region (TAR) in the counties of Dingjie, Dingri, Nielamu, and Jilong. The reserve is also home to 59,237 people (~2% of the TAR's total population). First established in 1989, the reserve was named a national reserve in 1994, and joined the World Network of Biosphere Reserves in 2004. The reserve is designated to protect alpine ecosystems, highland landscapes, natural history relics, and Tibetan history and culture heritages.

Among the TAR's 11 mountain peaks higher than 8000 meters, five (Mt. Qomolangma, Mt. Lhotse, Mt. Makalu, Mt. Cho Oyu, Mt. Shishapangma) are located in the MQNNR. Because of its extremely high elevation, Mt. Qomolangma is also called "the third pole of the earth", and "life forbidden zone". The rise of the high mountains blocks the path of water vapor from the Indian Ocean and thus makes the ecological landscapes completely different between the north and south slopes. The south slope, which accounts for 14.18% area of the MQNNR, is very steep, and the elevation difference between ridge and valley can reach 1000–7000 meters. River valleys of the south slope are mostly running from north to south, making them possible paths for the warm and wet airflow from the Indian Ocean. Hence the climate of the south slope is much warm and wet, and characterized with smaller diurnal temperature difference. By contrast, the north slope which is also much larger in area (85.82% of the total area) than the south slope, is much flat and high in elevation (>4000 meters above sea level). Because the wet and warm airflow from the Indian Ocean is blocked by the Himalayan Mountains, the north slope of the MQNNR is very dry and cold, and with a large diurnal temperature difference. The oxygen concentration is also lower in the north slope than the south as a result

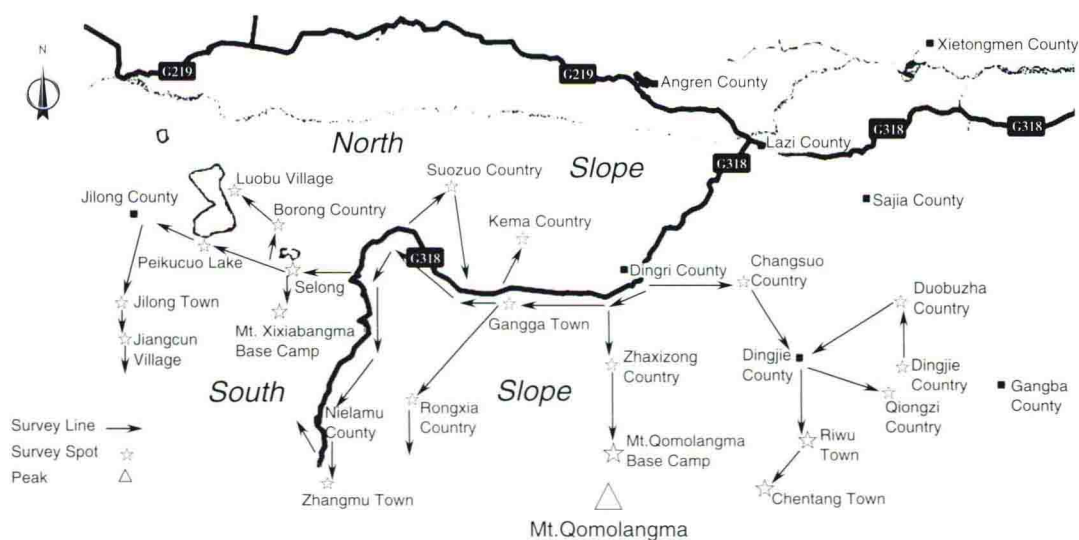
of the north's higher average elevation. River Pumqu runs across the heart of the north slope from west to east. Ecosystem structure is relatively simple in the north slope. Yet overall the whole MQNNR is characterized with very typical alpine vertical climate and vegetation zonation, and most of China's climate types can be found here. Primitive alpine forests, deserts, and river valleys in the MQNNR harbor a rich biodiversity; the harsh environment and the unique culture traditions of the local residents create a beneficial environment for its wildlife protection.

Birds are important members of our planet. The structure and dynamics of avifauna are important indices for ecosystem measurements. However, field expeditions to research avifauna in the TAR by Chinese scientists did not start until after 1960s, although foreign scholars were reported to sample bird specimen and investigate systematics and geographic distributions of some bird species in the TAR in early 19th century. Since the foundation of the TAR in 1959, there have been multiple government organized wildlife surveys in the TAR, and two of them covered current MQNNR. The first expedition was organized by the Chinese Academy of Sciences during 1960–1967; and the second one was organized by the TAR Forestry Department in 1987–1990, with special focus on rare and endangered animal species. The expeditions, despite the very difficult geographical and climatic conditions in the MQNNR, made substantial progress to our understanding of the avifauna of this region. Specifically, Vaurie described bird specimen sampled from the MQNNR in his works "Tibet and its birds" (1972). Qian et al. (1974) analyzed the avifauna and its vertical distribution for the MQNNR based on field work conducted in 1966–1968. Wang (1982) noted 289 bird species, which belong to 18 orders and 43 families in the Himalayan area, along with their avifaunal composition and vertical distribution.

With the rapid economic development in recent decades, the MQNNR is also subject to increasing climate change and anthropogenic influence. As a global sensitive region to environmental changes, changes in ecosystem structure and functions in the MQNNR are particularly noteworthy and have significant influence on the welfare of wildlife and human beings in–

habited in this region. Understanding the status and dynamic changes of the MQNNR's avifauna, therefore, is important for nature reserve management and environment monitoring of the Qinghai–Xizang Plateau. To this end, at the request of the MQNNR Administrative Bureau, we organized a new wildlife survey expedition for the MQNNR from October 2010 to October 2013. Our team included experts from the South China Endangered Animal Institute of the Chinese Academy of Sciences, the Chinese Academy of Forestry, and the Hunan Normal University. While our survey covered all wildlife in the MQNNR, we also conducted a special investigation on avifaunal community structure and diversity.

Due to the large area of the surveyed region, complicated topography, difficulty in accessing some “life–forbidden regions”, and the limited time, we sampled 33 transects (Figure 1) for avifauna investigation, based on principles like species first, easy to access, and representative habitats. These transects, with a total length of 353.4 kilometers, covered an area of about 260 km². With additional survey areas out of those transects (mostly during the transitions moving from one transect to another), we surveyed about 800 km², which accounts for 2.45% of the reserve's total area.



The sketch map of the survey lines

This book is a product of the expedition, which also incorporates early works by ornithologists from China and abroad. It describes in details 390 bird species, belonging to 18 orders and 62 families found in the MQNNR by 2013, including their distribution, abundance, and habitat. For the sake of bird protection, we abandoned the traditional way of identifying species through hunting and obtaining specimen. Instead, we identified those species through photographing and referring to numerous ornithological books, including "A Field Guide to the Birds of China" (MacKinnon et al., 2001), The Comprehensive scientific expedition to Qinghai–Xizang plateau, Academia Sinica. 1983. The avifauna of Xizang. Beijing: Science Press, 1–348. "A Handbook of the Birds of China" (Zhao Zhengjie, 2001), "Chorography Chronicles of the Tibet Autonomous Region • Fauna" (Compilation Committee of chorography of the Tibet Autonomous Region), "The Classification and Distribution of the Birds in Qingzang Plateau" (Liu naifa et al., 2013)

For the convenience of the readers, we simplify species descriptions by keeping only morphological descriptions on body size, shape, and color, but omitting information on measurement and anatomy. The avifauna systematics follow that in "A Checklist on the Classification and Distribution of the Birds of China" (Zheng guangmei, 2011).

We hope the book is pleasant to read and use. However, we understand there must be some errors and mistakes in this book. We welcome comments and corrections from readers, so that we can make it better in its next version.

Author
Jun. 2014

目录

CONTENTS



01 珠峰保护区鸟类资源概况 001

- I 区系 002
- II 群落特点与多样性分析 005
- III 垂直变化 009
- IV 结论 011
- V 保护建议 013



02 目别检索表 015



03 物种介绍 019

- I 鸬鹚目 PODICIPEDIFORMES(1科2属2种,1-2) 020
- II 鸬形目 PELECANIFORMES(1科1属1种,3) 021
- III 鸬形目 CICONIIFORMES(1科3属3种,4-6) 022
- IV 雁形目 ANSERIFORMES(1科6属12种,7-18) 024
- V 隼形目 FALCONIFORMES(3科17属30种,19-48) 031
- VI 鸡形目 GALLIFORMES(1科12属,49-63) 048
- VII 鹤形目 GRUIFORMES(2科4属5种,64-68) 057
- VIII 鸻形目 CHARADRIIFORMES(8科18属36种,69-105) 060
- IX 沙鸡目 PTEROCLIFORMES(1科1属1种,106) 081
- X 鸽形目 COLUMBIFORMES(1科3属12种,107-118) 082
- XI 鸛形目 CUCULIFORMES(1科2属7种,119-125) 088
- XII 鸱形目 STRIGIFORMES(1科5属7种,126-132) 092

XIII 夜鹰目 CAPRIMULGIFORMES(1科1属2种133-134)	096
XIV 雨燕目 APODIFORMES(1科2属4种,135-138)	097
XV 佛法僧目 CORACHIFORMRS(2科2属3种,139-141)	099
XVI 戴胜目 UPUPIFORMES(1科1属1种,142)	101
XVII 鸢形目 Piciformes(3科7属13种,143-155)	102
XVIII 雀形目 PASSERIFORMES(32科90属235种,156-390)	108



04 珠峰保护区鸟类名录	237
--------------	-----



附录

附录1:中文名称索引	253
附录2:英文名称索引	259
附录3:拉丁名称索引	265



06 参考文献	270
---------	-----

后记	273
----	-----

01 珠峰保护区

鸟类资源概况



I 区系

1.1 整体特征

本书共录得 18 目 62 科 390 种，占西藏自治区已知鸟类种数（473 种）的 82.5%。其中，留鸟 232 种，夏候鸟 97 种，冬候鸟 24 种，旅鸟 60 种，分别占总量的 59.5%、24.9%、6.2% 和 15.4%（注：部分鸟类既是留鸟，也是候鸟）。整体看来，珠峰保护区鸟类资源主要有如下特点：

其一，从分布上看，南坡的物种数量远高于北坡。前者为 326 种，后者为 115 种，南坡物种数量是北坡的 2.8 倍之多。从区系成分上看，东洋界、古北界物种数量基本相当，分别为 178 种和 164 种，各占已知总量的 45.6% 和 42.1%，广布种为 48 种，占 12.3%。从物种分布型（张荣祖，2011）上看，地域特征明显，古北型、喜马拉雅—横断山区型和东洋型占重要成分，分别为 79 种、96 种和 94 种，分别占 20.3%、24.6% 和 24.1%，其他皆不超过 30 种（表 1）。

表 1 鸟类分布型特点

分布型 (种)	全北型	古北型	东北型	季风区型	中亚型	高地型	喜马拉雅— 横断山区型	南中国型	东洋型	不易归类	无资料	合计
保护区	28	79	11	2	10	26	96	12	94	19	13	390
北坡	18	34	4	1	7	20	5	1	6	17	2	115
南坡	16	29	10	2	7	17	97	11	88	37	12	326

其二，特有物种数量多。其中，中国特有鸟类 6 种，包括藏马鸡 *Crossoptilon harmani*、大噪鹛 *Garrulax maximus*、灰腹噪鹛 *Garrulax henrici*、金额雀鹛 *Alcippe variegaticeps*、黄腹山雀 *Parus venustulus* 和地山雀 *Pseudopodoces humilis*。

青藏高原特有鸟类 16 种，包括藏雪鸡 *Tetraogallus tibetanus*、红胸角雉 *Tragopan satyra*、灰腹角雉 *Tragopan blythii*、棕尾虹雉 *Lophophorus impejanus*、黑鹇 *Lophura leucomelanos*、黑颈鹤 *Grus nigricollis*、西藏毛腿沙鸡 *Syrrhaptes tibetanus*、长嘴百灵 *Melanocorypha maxima*、地山雀、红腹旋木雀 *Certhia nipalensis*、褐翅雪雀 *Montifringilla adamsi*、白腰雪雀 *Onychostruthus taczanowskii*、棕颈雪雀 *Pyrgilauda ruficollis*、棕背雪雀 *Pyrgilauda blanfordi*、赤朱雀 *Carpodacus rubescens* 和红头灰雀 *Pyrrhula erythrocephala*。