徐凤翔 33'\$5'95'| Xu Fengxiang

中国地域西藏山川植被

भ्रा गुर निर्देश महिन्द्र अप निर्मा Tibetan Vegetation of China



山井 丁门玉 植 直遗

中国西藏山川植被 徐风翔

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1992 年徐风翔教授在喜马拉雅山 区考察(海拔5200m,摄影:罗大庆)

Prof. Xu Fengxiang was investigating in Himalayas mountain area 1992 (alt. 5200m.photographer:Luo Daqing)

徐凤翔 GG'瓷气'G气'| Xu Fengxiang

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Zheng Weilie
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হন্দ্যন্ত ক্রম্প্রামেশ্রমেশ্রমিশ্রম্পর্ণ দিন্দ্রমা Jiangsu Science and Technology Publishing House

社会主义的根本任务是发展生产力,而社会生产力的发展必须依靠科学技术。 当今世界已进入新科技革命的时代,科学技术的进步不仅是世界经济发展、社会 进步和国家富强的决定因素,也是实现我国社会主义现代化的关键。

科技出版工作肩负着促进科技进步,推动科学技术转化为生产力的历史使命。 为了更好地贯彻党中央提出的"把经济建设转到依靠科技进步和提高劳动者素质的轨道上来"的战略决策,进一步落实中共江苏省委、江苏省人民政府作出的"科技兴省"的决定,江苏科学技术出版社于1988年倡议筹建江苏省科技著作出版基金。在江苏省人民政府、省委宣传部、省科委、省新闻出版局负责同志和有关单位的大力支持下,经省政府批准,由省科学技术委员会、省出版总社和江苏科学技术出版社共同筹集,于1990年正式建立了"江苏省金陵科技著作出版基金",用作支持自然科学范围内的符合条件的优秀科技著作的出版补助。

我们希望江苏省金陵科技著作出版基金的建立, 能为优秀科技著作在江苏省

及时出版创造条件,以通过出版工作这一"中介",充分发挥科学技术作为第一生产力的作用,更好地为我国社会主义现代化建设和"科技兴省"服务;并能带动我省科技图书提高质量,促进科技出版事业的发展和繁荣。

建立出版基金是社会主义出版工作在改革中出现的新生事物,期待得到各方面给予热情扶持,在实践中不断总结经验,使它逐步壮大和完善。更希望通过多种途径扩大这一基金,以支持更多的优秀科技著作的出版。

这次获得江苏省金陵科技著作出版基金补助出版的科技著作的顺利问世,还得到江苏联合信托投资公司的赞助和参加评审工作的教授、专家的大力支持,特此表示衷心感谢!

江苏省金陵科技著作出版基金管理委员会

神秘、博大的西藏高原,自然景观和生物资源十分独特和丰富。但是长期以来,由于交通和信息的阻隔,外界对西藏知之甚少,往往误认为西藏只有雪山、草原,甚至将西藏视为"荒凉"的同义语。令人尊敬的徐凤翔教授执著于西藏高

出版说明

म्याद्यां स्वाद्यां स्वाद

The vast and mysterious plateau in Tibet is uniquely rich in natural spectacles and biological resources. Owing to communication barrier and lack of information little is known about Tibet. It is often mistakingly referred to as a mere wasteland with snow-capped mountains and grassland, which according to some becomes synonymous to "desolate". The respected Professor Xu Fengxiang is obstinately devoted to the

原生态研究。15年来,她考察了西藏的18个主要林区,境内行程12万余公里,三进墨脱(位于喜马拉雅山南坡的全国唯一不通公路的县),六渡"三江"(怒江、澜沧江、金沙江),横贯西藏(西起狮泉河,东至金沙江),克服了常人难以想

象的艰辛、险情和困难,多次死里逃生,获得了 大量珍贵的、填补空白的第一手资料,开创了西 藏高原生态研究的新领域。

为了将西藏这块大自然的瑰宝介绍于世, 同时展示徐凤翔教授在事业上所取得的重大成

च्चरःश्रुपुःचयत्रात्तीयःजयःवर् यःचपुःर्योवः च्चरःश्रुपुःचयत्रात्तीयःजयःवर् यःचपुःर्योवः यक्ष्ययःव यःचरःचीःच्चरःचीःच्चरःचीः यक्ष्ययःव यःचरःचीःच्चरःचीःच्चरःचीः यक्ष्ययःव यःचरःचीःच्चरःचीःच्यःचीः यक्ष्यःयःच्यःचीःच्चरःचीःच्चरःचीः च्चरःचुंद्रयःयःच्चर्यःचीःच्चरःचीःच्चरः च्चरःचुंद्रयःयःच्चर्यःचीःच्चरःचीःच्चरःचीः च्चरःचुंद्रयःयःच्चर्यःचीःच्चरःचीःच्वरःचीः च्वरःचुंद्रयःयःच्चर्यःचीःच्चरःचीःच्वरःचीः च्वरःचुंद्रयःयःच्चर्यःचीःच्चरःचीःच्वरःचीः च्वरःचुंद्रयःयःचीःच्चरःचीःच्वरःचीःच्वरःचीः च्वरःचुंद्रयःयःचीःच्चरःचीःच्वरःचीःच्वरःचीः च्वरःचुंद्रयःयःचीःच्चरःचीःच्वरःचीःच्वरःचीः च्वरःचुंद्रयःयःचीःच्वरःचीःच्वरःचीःच्वरःचीः च्वरःचुंद्रयःयःचीःच्वरःचीःच्वरःचीःच्वरःचीःच्यरः च्वरःचुंद्रयःयःचीःच्वरःचीःच्वरःचीःच्वरःचीःच्यरः च्वरःचुंद्रयःयःचीःच्वरःचीःच्वरःचीःच्यरःचिःच्यरःचीःच्यरःचीःच्यरःचीःच्यरःचीःच्यरःचीःच्यरःचीःच्यरःचीःच्यरःचीःच्यरःचीःचित्रःचिःच्यरःचीःचित्रःचित्यःचित्रःचित्यःचित्रःचित्रःचित्रःचित्रःचित्रःचित्रःचित्रःचित्रःचित्रःचित्रःचित क्ष्ययः याद्र याद्र याद्र स्ट्रीयः सः त्रिवाः व्याद्र स्ट्रीयः सः त्रिवाः व्याद्र स्ट्रीयः सः त्रिवाः व्याद्र स्ट्रीयः सः त्रिवाः व्याद्र स्ट्रीयः स्ट्रीयः

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기타행정·기자대·디먼기 A WORD FROM THE PRESS

research in the plateau ecology of Tibet. During the last 15 years, she has made arduous expeditions to 18 major forest areas in Tibet and covered more than 120000 kilometres. In the process, she made way into Mutuo (on the southern slope of the Himalayas, the only county of our country that has no highways) three times and crossed six times the Nujiang River, the Lancang River and the Jinsha River. She has experienced

and overcome the most difficult hardships and unimaginable dangers. For several times, she narrowly escaped death. As a result, large amounts of precious and first-hand information and data have been obtained, which help start the ecological research of the Tibet Plateau.

In order to present this great treasure of nature to the public and to exhibit the great achievements Professor Xu Fengxiang has made

就,了却一位赴藏科技工作者的夙愿,我们组织出版了这部《中国西藏山川植被》大型画册,并衷心希望:通过这些十分珍贵的资料,让广大的世人认识西藏的真面貌,从而爱上她——我们祖国大好河山奇丽的一隅;同时,更想把西藏这

个独特的自然科学宝库丰富的内涵,介绍给科学界的同行们,让这些难得的资料来吸引广大科学工作者的关注,以期进一步共同探索西藏、保护西藏、开发西藏、建设西藏!

江苏科学技术出版社 1992.12.

चीतः श्रमी. तुः स्टा ने दे न्यः त्र प्राच मीतः श्रमी. तुः स्टा ने स्टा न्यः स्टा ने स

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도착·평국·미저대·교위도) A WORD FROM THE PRESS

in her field so as to realize the long-cherished dream of a scientist working in Tibet. we have organized the publication of this large picture album "Tibetan Vegetation of China". It is genuinely hoped that the authentic materials in the album will give the public a true picture of Tibet and then hold dear this wonderful corner of our motherland. Meanwhile, it is intended to dedicate this special treasure house of natural sciences to

our fellow scientists so as to attract their attention and interest in its further exploration. protection. exploitation as well as construction.

Jiangsu Science and Technology Publishing House

December, 1992

徐凤翔同志是我区著名的高原植物生态研究专家,西藏高原生态研究所所长。

她进藏前在南京林学院任教。70年代到西藏进行森林考察,被西藏高原独特的自然景观、复杂多样的地貌和纷繁珍稀的植被所吸引,毅然离开了工作生活环境优越的南京市,自愿调

मूक्त्य्रम् द्वान्य विक्रम् स्वर्णा स

An expert on plant ecology of plateau in our region. Professor Xu Fengxiang is now director of Tibet Institute of Plateau Ecology.

She had been a teacher at Nanjing College of Forestry before she entered Tibet. In the 1970s, she went to Tibet to make forest explorations. Attracted by the unique landscape, the various landforms and the peculiar vegetation on the Tibetan Plateau, she gave up without hesitation the favourable working and living conditions in Nan-

序

进西藏,其时已年逾半百。

徐凤翔深爱西藏这片神奇瑰丽的土地。她和她的助手们以强烈的事业心、责任感、坚韧不拔的毅力和吃苦耐劳的精神,十几年来踏遍了西藏的高山大川、密林深谷,正如她在感受中所说:"经历了多少艰辛,遇到了多少险情,是外人

难以想象,甚至是笔墨难以形容的。"

徐凤翔是在西藏建设事业蓬勃发展的大好年代调进西藏的,西藏广阔的天地和有利的社会环境使她的聪明才智得到了充分的施展。她和有关方面积极筹建了西藏高原生态研究所。她和她的助手们对西藏高原生态做了大量实地

 जयाविस्याद्वराविषाविषावे स्ट्रेस्याः ज्यायावेद्वरविष्याविषावे स्ट्रेस्याः ज्यायावेद्वरविष्याविष्यावे स्ट्रेस्याः स्ट्रियावे स्ट्रेस्यायावे स्ट्रेस्यायावे स्ट्रास्यायावे स्ट्रेस्यायावे स्ट्रास्यायावे स्ट्रेस्यायावे स्ट्रेस्यायावे स्ट्रेस्यायावे स्ट्रेस्यायावे स्ट्रास्यायावे स्ट्रेस्यायावे स्ट्रेस्याये स्ट्रेस्याये स्ट्रेस्याये स्ट्रेस्याये स्ट्रेस्याये स्ट्रेस्ये स्ट्र

jing and resolutely came to work in Tibet when she was already over her fifties.

Xu Fengxiang shows an ardent love for this magical and beautiful land. During the last decade with strong devotion and sense of responsibility and with unyielding willpower and hardworking spirit. she and her assistants have topped many high mountains, crossed big rivers, explored thick forests and deep valleys. Just as she often puts it. "It is really unimaginable and

unutterable how many hardships and hazards we have ever experienced."

Xu Fengxiang was transferred to Tibet when its construction was developing vigorously. In this vast new world with favourable social conditions, her wisdom and talents were brought into full play. She, together with some departments concerned, took an active role in the preparations to found the Tibet Institute of Plateau Ecology. She and her assistants have

考察和研究,为西藏生态环境保护、自然资源的合理开发利用提供了宝贵资料和科学依据,发挥了科技这个第一生产力为我区经济建设服务的作用。

结合专业考察,徐凤翔同志不顾跋涉的辛 劳,利用考察之便,以对祖国山河的爱心拍摄了 大量珍贵的图片。江苏科学技术出版社十分珍视她的科研成果,将这些图片精选、编辑、出版了《中国西藏山川植被》画册。这本画册是她多年辛勤劳动的又一成果。画册展现了西藏各个地区迥然不同、各具特色的自然风貌、河流湖泊、植物分布和鲜为人知的丰富珍贵的自然资

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स्ट.पवितःक्र्यःत्रम् वार्ध्रदः र्टः ब्रेयःहेः र्त्तः अद्युदः लुदः श्वेटः ल्टः वीयः देः प्रकृतः अटः पक्तयः चेदः धरः अः प्रहेश्रयः धरः हैवः…… *२५५:चे२:भ्रेनवर,४५:नक्षे*ब.बक्ष.ब्रह्मत.ब्री. रे.प्राप्तः वर्षायः स्वायः प्रतिः श्रुः खेळायः प्र **ঀঽ**য়ॱঢ়৾৾৾৽ঽ৾৾৾৾ঀৼয়ৼ৽য়৾৻৽ঢ়৾৻৸ঽ৾৻৸ৼ৾য়ৼ৽য়ৼ৽য় <u>ৢবলুব:শ্র্ম ২৮.প্রে:ক্র্র-ইন্স্ন্র্</u> इत्यः न् ये सुद्रापटः वीया विट स्विः स्व देवा ঀৢ৾৾ঀॱ৻৻৻য়ৢয়৾৽য়ৢঀ৽৻৻য়য়য়ৼ৽ৼৢৼ৽ঌ৾৾৾য়৽ र्घ-चुक-हे-*वर्-धर-दे-दे*ग्वर-यत्र-दर्घरा..... चेश्रवःग्रीयःज्ञेषायः चङ्ग्रीवायः चेशः दयः (ग्रीटः.... য়৾৾য়৾৻ৼ৴ৼৄ৾ঢ়য়ৼ৾৻য়ৢঢ়য়ৢৢৢৢৢৢৢৢৢৢঢ়ৼয়৾৽৻ঢ়য়৾৽৽৽ यक्रवःरेयः पर्दे : धरः श्ववः चुषः धः रेद्। यक्रवः धरःवरे वे विर संग्रं अर संवे रेर र् ग्रवः पथ.रपा.र्भ्रपाचिषाराषु.पर्यथ.र्भ.धुवा.तार्था पक्रव देव पदिते वर पॅर क्रेंट श ग्री खुता शु ... য়৻য়ৢঢ়ৢঀৢৼৢয়য়৻য়ৢৢৢৢৢৢয়ৼ৻য়৻৸ৢয়ৢ৻ৼ৻ৼ৾৻ৼৄয়ৢ৽৽৽৽ ਜ਼ਖ਼੶**৴**ৼ৾৾*ঀৼ*৻ঀ৸৾ৄৼয়৻ৼৼ৾৾৾৾৾৽ बर्कता भ्रेन्ट्रियानी पिता क्री मानवा मीया या

made many actual explorations of Tibetan plateau ecology, which have provided many precious materials and scientific evidences for the protection of Tibetan ecological environment and reasonable exploitation of natural resources, and have played an important role in the economic construction of our region. In this sense, I venture to state that science and technology have truly become the most important productive force.

With the ardent love for my motherland. Professor Xu Fengxiang, during her explorations, has taken a large number of precious pictures regardless of many hardships. Supported and encouraged by some departments, she carefully selected these pictures and put them in this album "Tibetan Vegetation of China". This is another accomplishment of her many years' hardwork. It displays different and unique land-scapes, rivers and lakes, plant distribution and

源,不仅有很高的科学资料价值和审美价值,而 且对于国内外人士正确认识西藏,乃至吸引国 内外人士来西藏旅游观光、科学考察和投资开 发有着积极的意义。

我衷心祝贺这部画册的出版,欣然为之作 序,并祝愿徐风翔和我区高原生态研究工作人 员为高原生态考察和研究做出更大成绩,为西藏深化改革、扩大开放、加快经济建设步伐做出更大贡献。

丹 增 1992.12.

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चाबु तर्र ह्रियास ध्रेता हे यहाँ त्या खु तर्र ह्रियास ध्रेता व्या हे दा तही त्या खु तरि ह्रोता ला प्रकार स्था हे दा तही त्या खु तरि ह्रोता ला प्रकार हो तर्

র্মন'শ্রী PREFACE

other abundant precious natural resources in all parts of Tibet. which are not known so far to the public. These pictures are not only of high scientific and aesthetic value but of great significance to those at home and aboard who want to make sight-seeing tours, scientific research and even investment in the region as the pictures give a true presentation of Tibet.

In order to extend my cordial congratulation on the publication of this album. I write this preface with great pleasure. And I wish Xu Fengxiang and other researchers working in Tibet greater achievements in explorations and research of plateau ecology. They will surely make greater contributions to its deeper reform, more open policies and quicker economic construction pace.

Dian Zing December 1992 올와'다'덫년'전'집사'외夫구'다랑세

作者小传

ABOUT THE AUTHOR

徐凤翔,女,1931年生,江苏丹阳人,森林生态学教授,西藏农牧学院高原生态研究所所长。1955年毕业于南京林学院,并留校任教。1978~1980年援藏,1981~1984年每年进藏考察,1985年调藏。 在她38年的教学科研生涯中,教学严

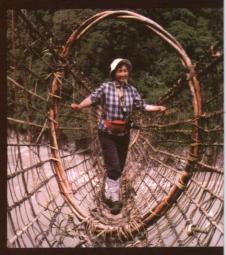
Xu Fengxiang, female, was born in Daiyang of Jiangsu Province in 1931. She is a professor of forest ecology and director of Tibet Institute of Plateau Ecology. In 1955 she graduated from Nanjing College of Forestry and then became a teacher at the same college. During 1978~1980, she was sent to Tibet in order to help its development. From 1981 to 1984, she went to Tibet to make investigations every year. In 1985, she was transferred to work in Tibet.

During her 38-year teaching and research

谨,科研专注,成果丰盈。她酷爱自然,倾心山林,为探索、揭示生态环境与森林资源的内蕴,考察了我国 65 个主要林区,其中西藏的主要林区 18 处,区内考察行程 12 万余公里,西从狮泉河经"无人"区至东侧金沙江畔,上达珠峰大本营,下至雅鲁藏布江

下游湿热的墨脱,横贯西藏,攀峰下谷,历尽艰辛,取得了大量珍贵的数据、标本和图像资料,在不少方面填补了高原生态研究的空白。

नेरा

1990 年徐凤翔教授在墨脱林区考察(海拔 800m,摄影:郑维列) Prof. Xu Fengxiang was investigating in Medog forest. 1990 (alt. 800m.photographer: Zheng Weilie)

career, she has been very strict with her instruction and devoted herself to scientific research and made outstanding achievements. She shows an ardent love of nature and dedicates all herself to mountain forests. In order to disclose the correlation between ecological environment and forest resources, she has made study tours to 65 major forest areas in our country, eighteen of which are in Tibet. There she has covered more than 120000 kilometres, from Shiqian River in the west through the "uninhabited" area to Jinsha

River in the east, from Qomolangma down to the humid Mutuo, the lower reaches of Yalu Tsangpo River, and almost traversed the entire Tibet. During the expeditions, she has climbed many high mountains and entered many deep valleys, and after a huge number of hardships she has collected large amounts of valuable data, specimens and photographs which in many aspects have bridged the gaps in the plateau ecological research.

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