

云南

大自然博物馆

YUNNAN NATURAL MUSEUM

ANIMAL

动物
奇趣



云南大学出版社
YUNNAN UNIVERSITY PRESS

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云南省科学技术协会
云南省生态经济学会
西南林学院

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云南大学出版社
YUNNAN UNIVERSITY PRESS

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云南大自然博物馆·动物奇趣

云南大学出版社出版发行
昆明雅昌彩色设计制作中心制作
深圳雅昌彩色印刷有限公司印装
开本: 850 × 1194 1/12 印张: 8
1999 年 5 月第 1 版第 1 次印刷
印数: 0001 — 3000
书号: ISBN 7-81068-033-1/N · 2
定价: 392.00 元 / 套 (98.00 元 / 册)

Yunnan Natural Museum · Animals

Published and Distributed by:Yunnan University Press, Kunming,
P.R. of China
Produced with Computer by: Kunming Artron Color Design and Producing Center
Printed by: Shenzhen Artron Colour Printing co., LTD.
First Publication in may 1999
ISBN 7-81068-033-1/N · 2
Price:392.00 yuan/series (98.00yuan/volume)

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大天鹅 *Cygnus cygnus*

前言

云南地处中国的西南边陲,位于北纬 $21^{\circ} 8' 30''$ 至 $29^{\circ} 15' 8''$,东经 $97^{\circ} 31' 39''$ 至 $106^{\circ} 11' 47''$ 之间,属于低纬度高海拔内陆地区。北与西藏、四川相连,东与贵州、广西接壤,南部和西部分别与越南、老挝、缅甸毗邻。面积约39万平方公里,居中国第八位。

特殊的自然地理和气候条件,使云南不仅成为古人类的起源地之一,而且成为世界上不多见的一座活生生的大自然博物馆。云南以“动物王国”、“植物王国”、“有色金属王国”、“生物物种基因库”等美称享誉中外。这是一块博大而充满激情,深邃而富有魅力的神奇土地。她像一块璀璨夺目的绿宝石,吸引着千千万万热爱自然的人们。

云南是中国生物多样性主要地区,是一些重要物种的原产地,是世界级生物关键栖息地区之一。云南动物资源的特点:一是种类繁多。仅以脊椎动物为例,有淡水鱼类400余种,占中国淡水鱼的一半;两栖类动物中国有231种,云南有102种,占44.6%;爬行类中国有385种,云南有143种,占37.6%;鸟类中国有1257种,云南有806种,占64.1%;兽类中国有587种,云南有300种,占51.1%。二是特有种类多。中国的许多动物,其自然分布区仅限于云南或主要分布于云南,如兽类中的亚洲象、亚洲野牛、白颊长臂猿、滇金丝猴、灰叶猴、麝鹿、熊狸等;中国已记录1257种鸟类中,有114种鸟类只能在云南见到,如黑颈鹤、黄嘴河燕鸥、双角犀鸟、棕颈犀鸟、绿孔雀、剑嘴鹛等。三是珍稀濒危种类多。被列入中国野生动物保护的动物种类名录,云南居全国之首。

多年来,人们习惯把动物视为一种资源,将其分为观赏动物、裘皮动物、药用动物、食用动物。其实除了直接用途之外,动物更为重要的作用还在于维护自然界的生态平衡,丰富人类精神生活方面的生态文化作用。同时,云南丰富多彩的动物种类,是发展云南旅游业的重要基础。而动物的这种作用为人类所带来的福祉和效益是很难用货币进行评价的。

云南虽然动物种类繁多,但是每种动物个体数量相对偏少,加上自然环境不断遭到破坏,动物赖以生存的范围越来越小;一些人的乱捕滥杀,又加剧了许多动物濒临灭绝。科学合理地开发生物资源,让生物多样性得到可持续发展,已成当代社会的共识。希望能通过此画册基本反映出云南动物王国的风貌,让读者在目睹野生动物的风姿神采的同时,懂得尊重自然,善待动物,接受保护自然就是保护人类自己的观点,给云南后人留下一个绚丽多彩的世界。

《云南大自然博物馆》集科学性、知识性、艺术性与趣味性为一体,意在把云南最有价值的自然之美奉献给读者,让人们更加了解云南、认识云南。同时,也希望人们更加热爱大自然,自觉地保护生态环境,与自然和谐相处。

Preface

Yunnan province is located in southwestern China between 97°31'39"~106°11'47" E and 21°08'30"~29°15'8" N. It is an inland province at a low latitude and high elevation. The province borders Tibet and Sichuan in the north, Guizhou and Guangxi in the east, Vietnam and Laos in the south and Myanmar in the west. Its total area is about 390,000 km², and it is the eighth largest province in the country in area.

Yunnan is one of the original homes of our forefathers. It is famous throughout the world as the kingdom of animals, plants and non-ferrous metals. In this beautiful and varied land, you can enjoy countless wonders of nature, rich biodiversity and many historic sites, all of which make you feel as if you were in a huge, living, natural history museum. The land is so entrancing that millions of people who love nature have been attracted to this wonderland.

Yunnan is the most important habitat for the fauna of China. Many important species were first found in the area. About half of China's animal species can be found in Yunnan (see following table). The following table shows a breakdown of species first over the whole of China and second, in Yunnan Province alone.

The province has many endemic animal species, such as the Indian elephant, Gaur, white-cheeked gibbon,

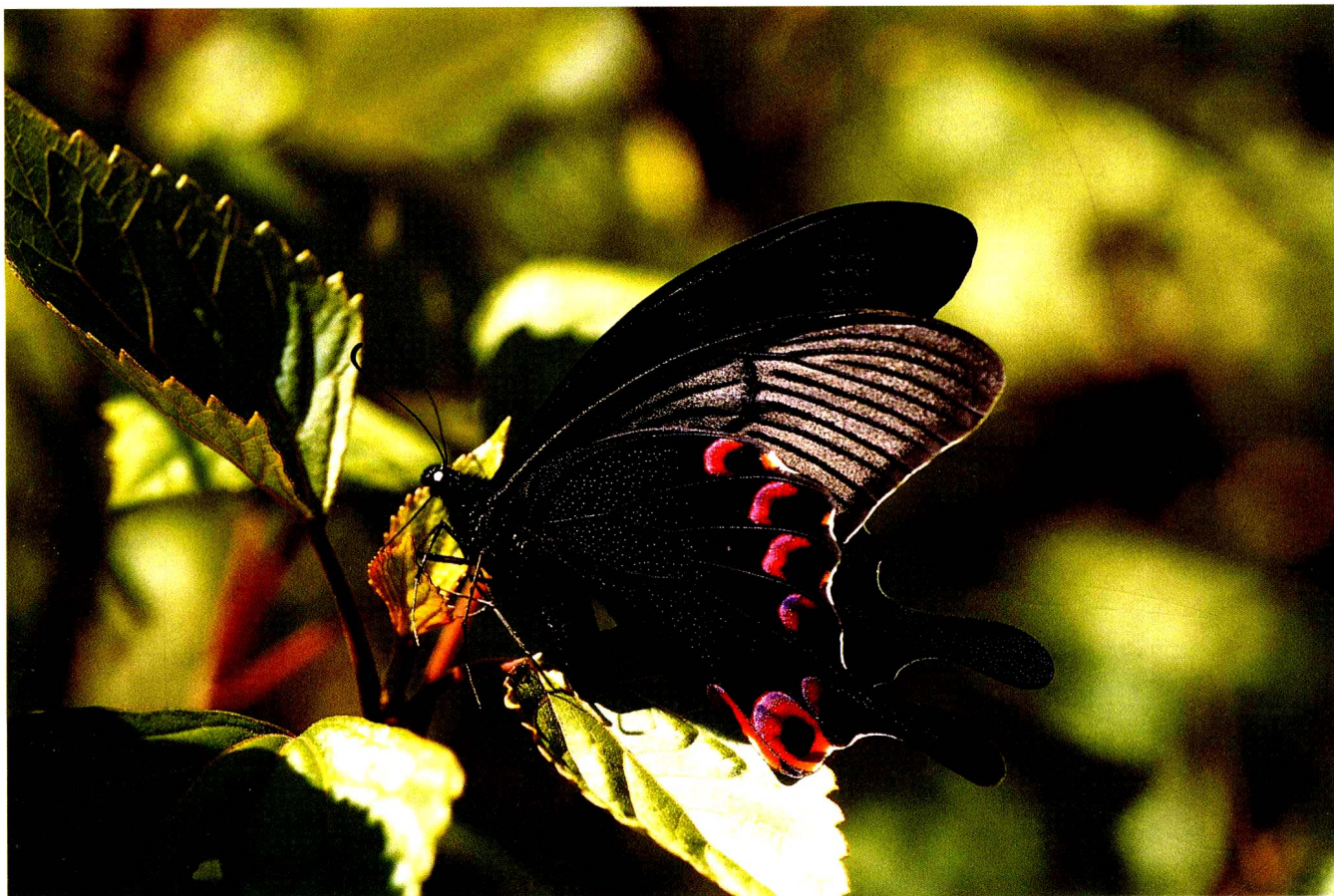
Species	China	Yunnan
Fresh water fish	800	400
Amphibians	231	102
Reptiles	385	143
Birds	1257	806
Mammals	587	300

Yunnan snub-nosed monkey, Phayre's leaf monkey, etc. About 114 bird species can only be found in Yunnan, such as the Indian river tern, the great pied hornbill, the rufous-necked hornbill, the green peafowl, etc.. On the List of the Protected Animals, Yunnan has more species than any other province in China.

For many years, people have just used wildlife for what they can get from it, for instance, fur, medicine and food. Actually, its most important role is helping to maintain the ecological balance of nature. Added to that, the wildlife resources are also very important in developing tourism throughout the Province.

Although Yunnan is rich in animal species, however, the population of each species is very small so there is an urgent need to protect the animal resources in the province. We hope readers will learn more about Yunnan's wildlife while going through this album, and encourage everyone to respect nature and treat wildlife kindly. By protecting wildlife we are protecting human beings themselves.

In order to help people appreciate and understand Yunnan, we published this album series, "Yunnan Natural Museum", hoping that more and more people will learn to love nature and care for the environment. While producing this album series, our aim was to make the books scientific, informative, interesting and beautiful to look at.



001

昆 虫

昆虫是地球上最古老的动物之一，它出现在三亿五千万年前的泥盆纪。相对于其它动物，昆虫的体型较小。身体分为头、胸、腹三部分；有两对翅和三对足。

据科学家们估计，全世界有昆虫 150 万 ~ 300 万种，它们占全部动物种类的 3/4。有人估计中国的昆虫就有 20 万 ~ 30 万种，云南约有 10 万 ~ 15 万种，但云南省的已知昆虫种类还不到 2 万种。所以大多数云南昆虫现在还有待人们去探索和研究。

云南的昆虫当中，很多是体形硕大，色泽艳丽，斑纹奇特，形状怪异，特别是云南南部的东洋区种类表现得最为突出。

昆虫世界丰盈奇妙，从地下到空中，从两极到赤道，从水域到沙漠，从平原到高山随处可见，无所不在。

大多数昆虫营自由生活，但也有一些种类是其它动物(包括昆虫)体内体外的寄生者，各种昆虫都有其独特的生活方式和生存环境，但一般说来，昆虫一生需要经过不同的生长发育阶段，即卵、幼虫、蛹、成虫。

昆虫在长期的发展过程中形成了特有的形态、体色和斑纹，如与生存环境极为近似的保护色、警告敌害不得靠近的警戒色。还有些昆虫能模拟其它物体和动物，这种现象称之为拟态。

昆虫与人类关系十分密切。许多昆虫早就为人类所利用。如养蚕缫丝，养蜂取蜜等，但也有些昆虫会对人们造成经济损失。更有些昆虫是仿生学的模子。因而“兴虫利抑虫害”就是人与昆虫关系的总括。

Insects

Insects belong to one of the most ancient animal groups in the world. It is thought that they began to appear on the earth during the Devonian Period, 350 million years ago. They are small compared with most other animals. The insect's body consists of three parts, a head, a thorax, and an abdomen. Most insects also have two pairs of wings and six jointed legs.

It is estimated that about 150-300 million insect species can be found around the world and that insect species may account for three-quarters of all the species of animals on the planet. Scientists believe that China has about 200-300 thousand insect species and Yunnan has about 100-150 thousand species. However, in the province so far, less than 20 thousand insect species have been recorded. Therefore, Yunnan's insects still need further study.

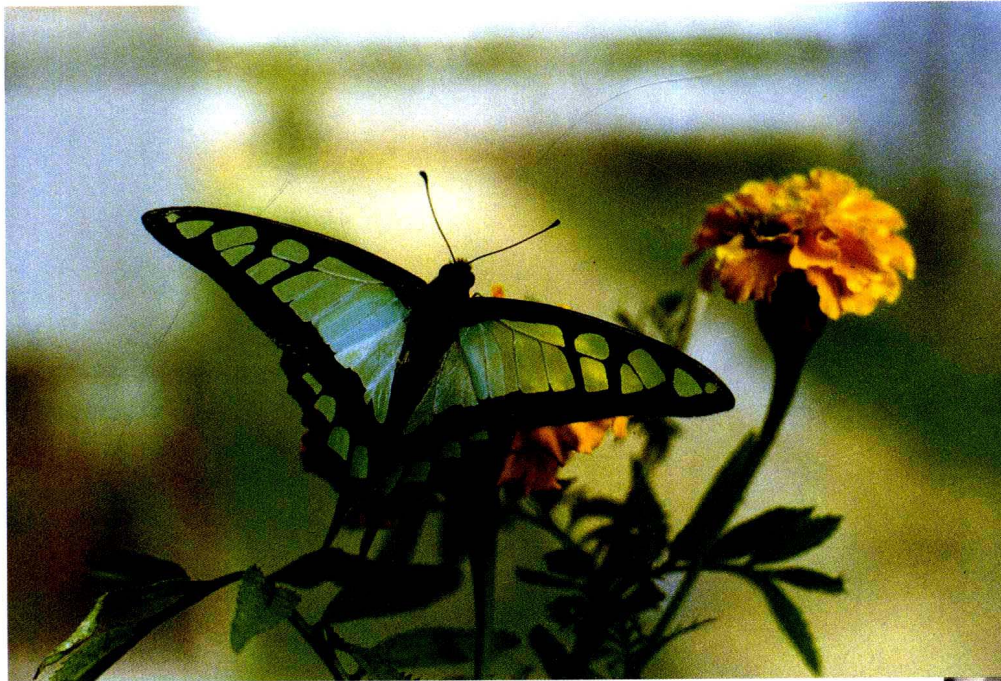
Many of Yunnan's insects are very large, some are multicolored and some have strange shapes and special stripes on their body.

This kingdom is full of wonder. Insects can be found everywhere, on the ground in the air, from the north and south poles to the equator, in water areas and deserts, on the plains and on the highest mountains.

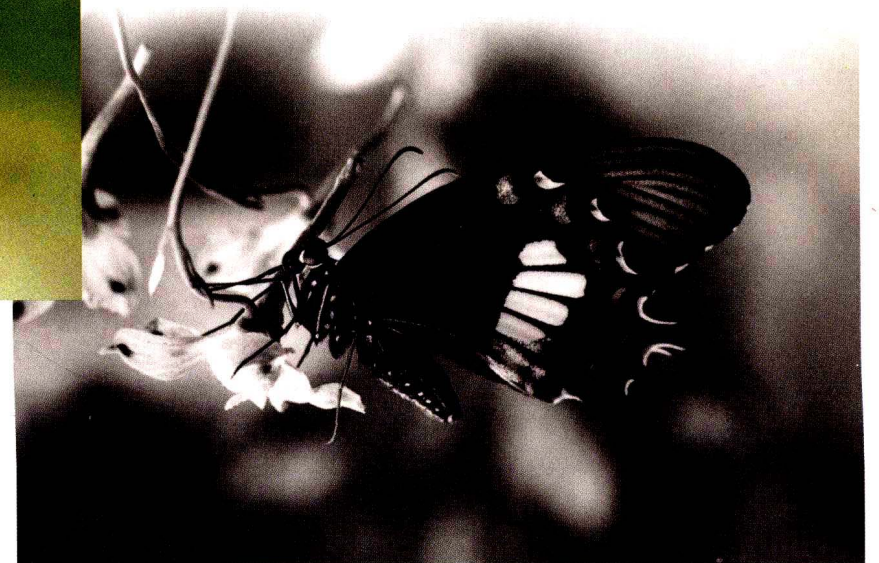
The majority of insects live free, but some are parasites. Each of the species of insects has its own unique living style, habits and environment. However, most of them have to experience the 4 stages in their life cycle, first the egg, then the larva, the pupa, and finally the adult.

During evolution, insects have developed their own unique shapes, colors or stripes as they have adapted to their environment. Some are shaped and colored to look like their environment, some have warning colors, and some gain protection by mimicking other animals.

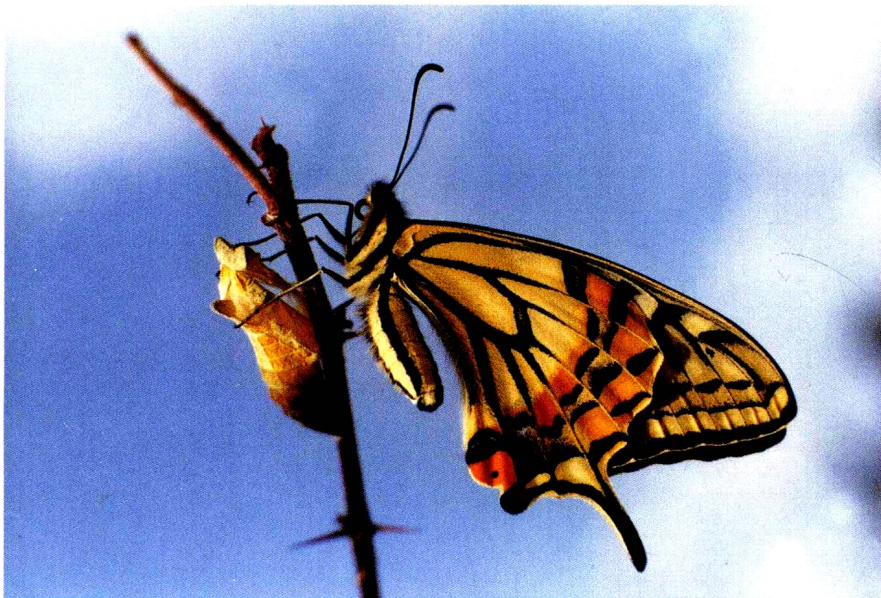
Insects have a close relationship with human beings. Many insects have been used by people since ancient times, for instance, raising silkworms to make silk and raising bees for honey. But some insects can cause havoc, and bring economic loss to people. Some insects are models for bionics. Therefore, it is always important to control the harm they do, and get benefit from them.



002



003



004



005



006

001 中华翠凤蝶

002 长尾樟凤蝶

在樟尾凤蝶中，它以后翅各有一根较长的尾突而独领风骚，飞翔迅速。

003 玉带凤蝶

广布于云南各地的常见凤蝶，后翅一系列椭圆白斑犹如玉带随风飘舞。

004 春凤蝶

又称花椒凤蝶，常见的一种凤蝶，为柑桔的一大害虫。图为刚羽化的成蝶。

005 春凤蝶幼虫

006 春凤蝶蛹

001 *Achillides bianor*

002 *Graphium cloanthus*

Flies swiftly with a long tail on each of its back wings.

003 *Menelaides polytes*

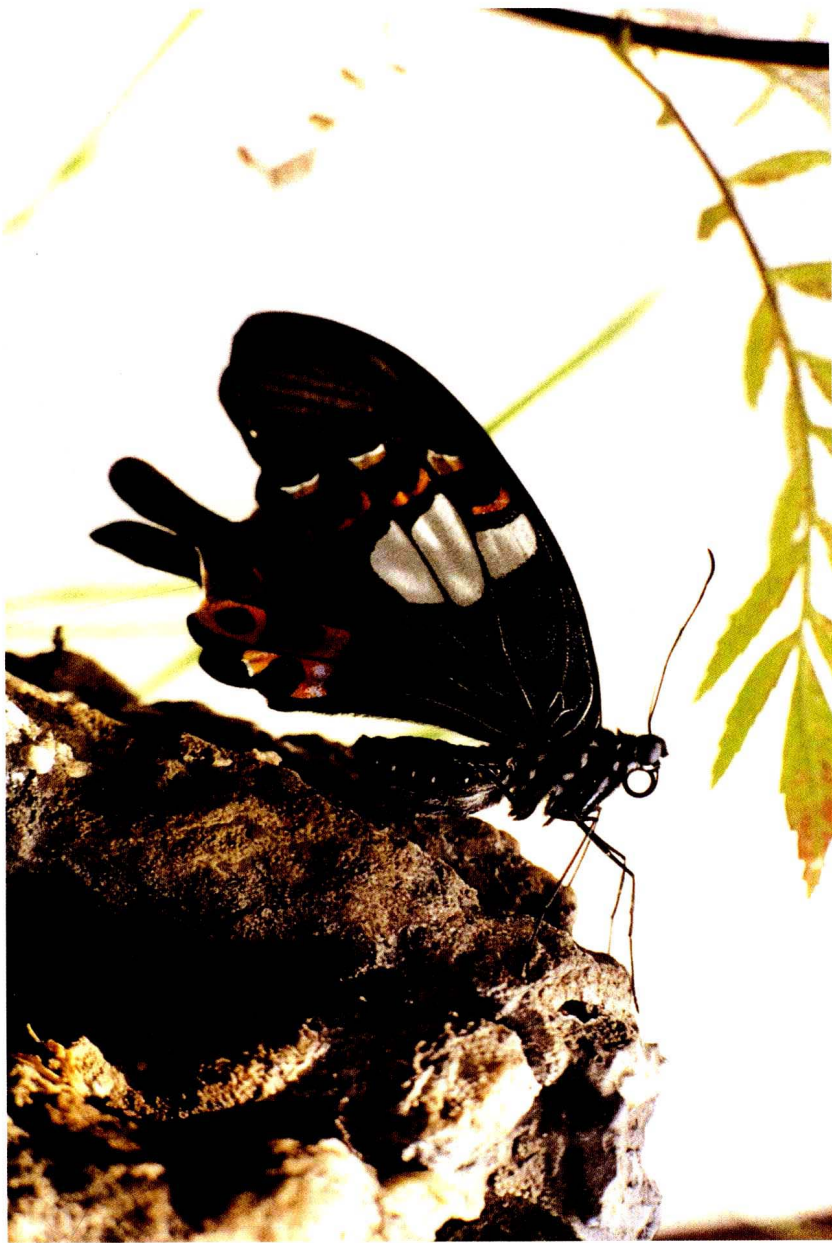
Found in many places in the province. Its back wings have a series of elliptical white spots.

004 *Papilio xuthus*

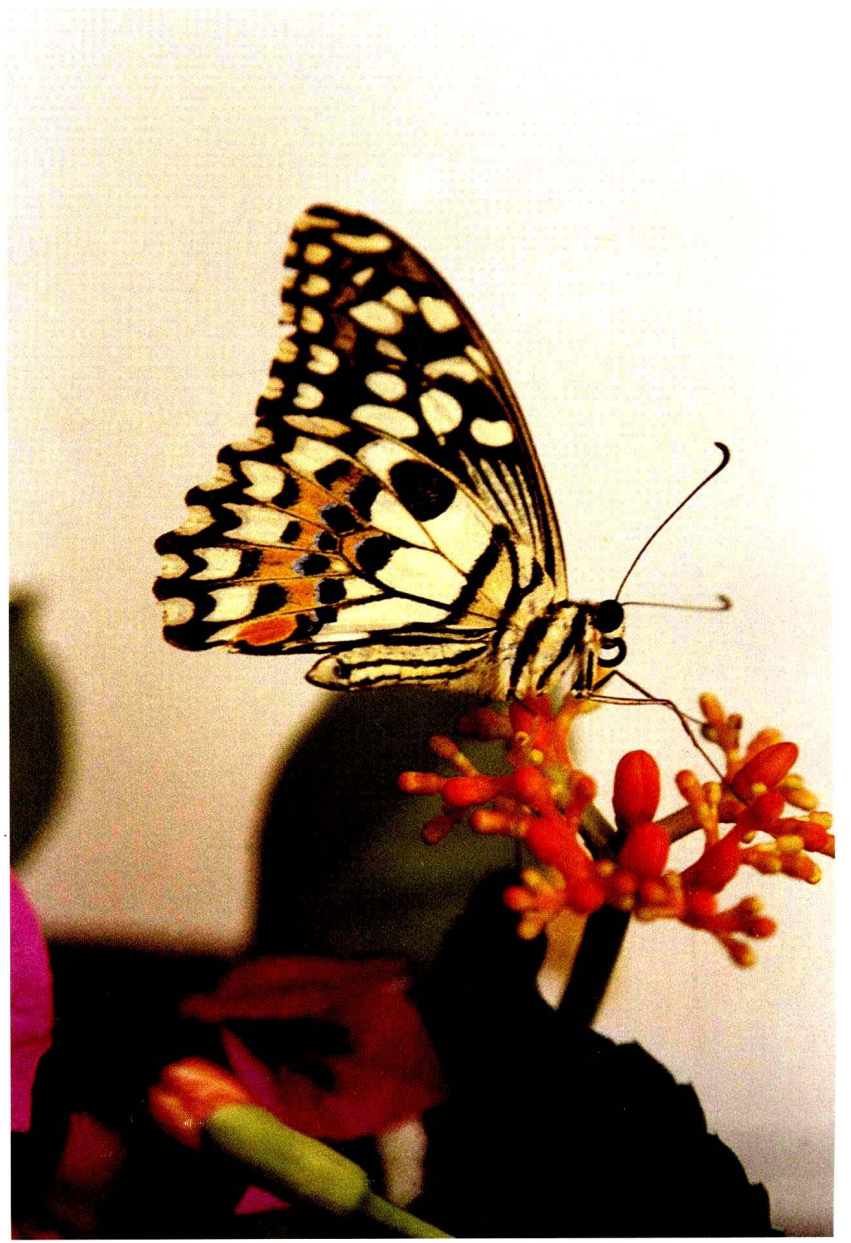
This common papilio can be found everywhere and can seriously damage orange trees. The picture shows a butterfly just emerging from the pupa.

005 Larva of *Papilio xuthus*

006 Pupa of *Papilio xuthus*



007



008

007 玉斑凤蝶

从后翅三个紧在一起组成的一个玉色或玉黄色大斑而得名，此斑甚似一念经的小和尚，又称僧影凤蝶。

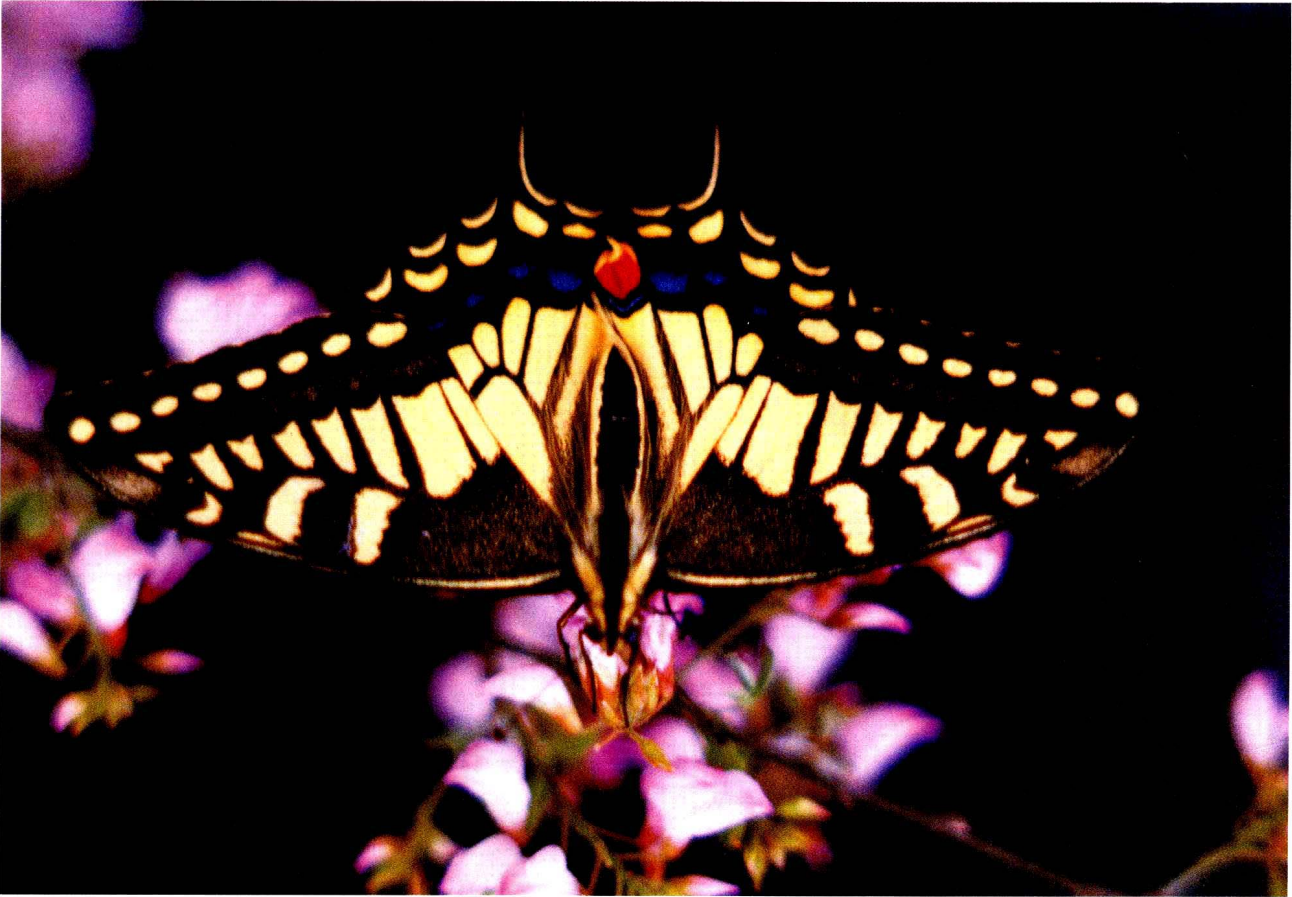
008 达摩凤蝶

007 *Papilio helenus*

008 *Priniceps demoleus*



009



010

009 白带燕凤蝶

010 长尾金凤蝶

011 双珠大娟蝶

又称领袖娟蝶，著名的高山娟蝶，
从后翅两个大的红色眼状斑得名。

012 金凤蝶

013 褐凤蝶

009 *Lamproterea curius*

010 *Papilio verityi*

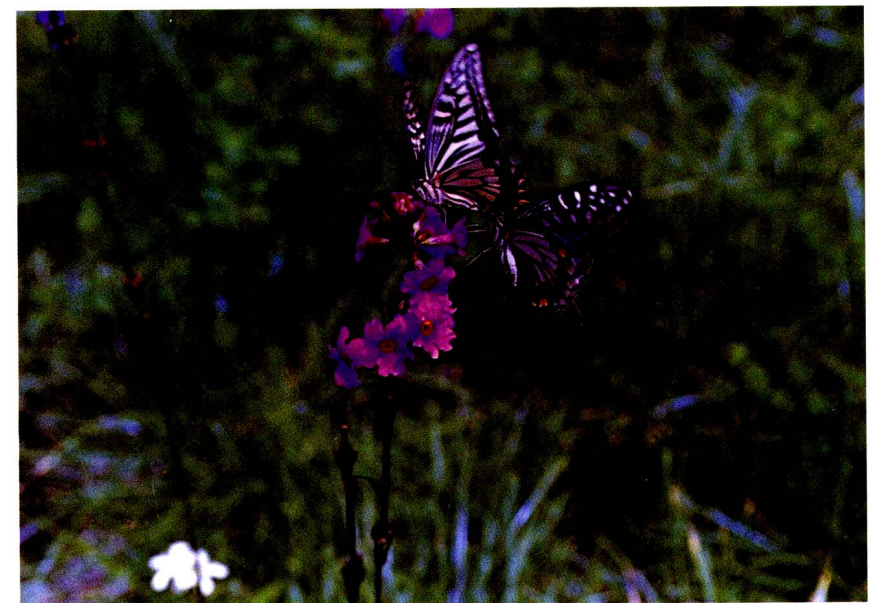
011 *Parnassius imperator*
Its back wings have two big
red eye-like spots.

012 *Papilio machaon*

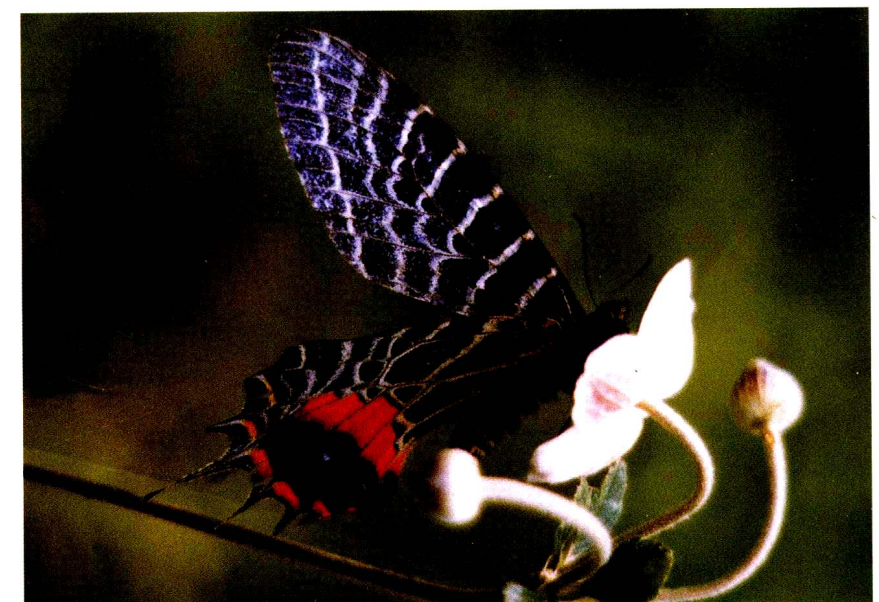
013 *Bhutanitis lidderdalii*



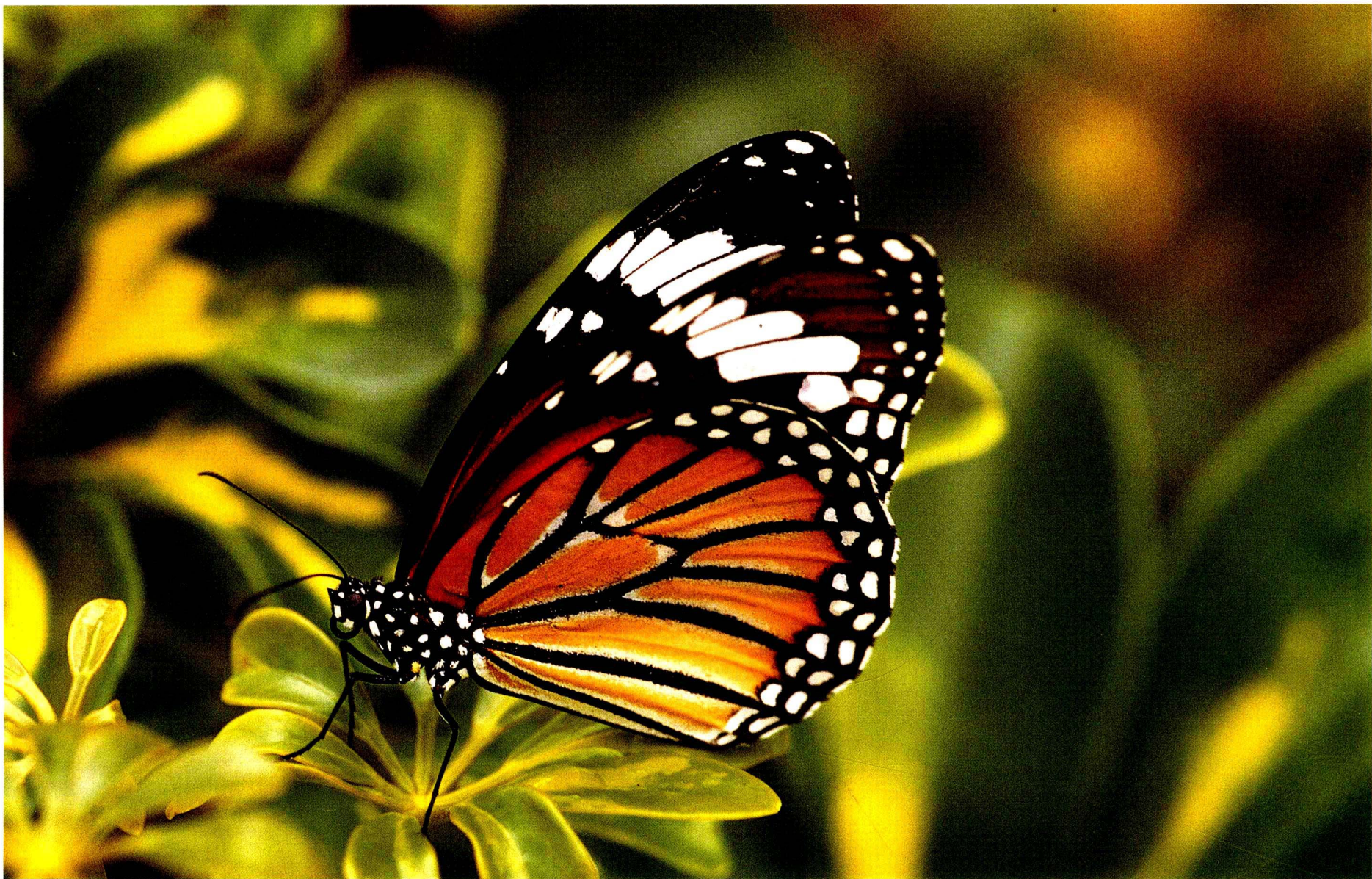
011



012



013



014

014 粗脉棕斑蝶

美丽而常见的蝴蝶，云南大部地区均有幼虫和成蝶体内具毒，敌害不敢侵犯，故为多种其他蝴蝶所模拟，借以御敌。

015 泰裙纹蛱蝶

常见于云南南部，雨季较多。

014 *Salatura gerutia*

Common in Yunnan. The larva and adult are both poisonous so many other butterfly species protect themselves by mimicking this species.

015 *Cethosia cyane* (No. 1)

Common in southern Yunnan, especially in the rainy season.