

# Book Reviews

**Book Review Editor's Note:** We are continuing to use the current currency codes. Thus Canadian dollars are CAD, U.S. dollars are USD, Euros are EUR, China Yuan Remimbi are CNY, Australian dollars AUD and so on. You will find these are the codes now used by financial institutions and internet currency converters. I will include an updated note for the next few issues as a reminder.

## ZOOLOGY

### Animal Life

Edited by C. Uhlenbroek. 2008. Tourmaline Editions Inc., DK Publishing Canada [American Museum of Natural History], 662 King Street West, Suite 304, Toronto, Ontario M5V 1M7. 512 pages, 55.00 CAD Cloth.

If you are looking for a book to interest a teenager in the natural world [or an older person with a renewed opportunity to study wildlife], then this is the book for you. It covers the animal kingdom from dust mites to whales, from blood to senses and intelligence to behaviour. Each page is a collage of photographs, text or art work that provides a stunning visual experience.

The book has 21 major headings and about 75 "chapters." Each of these chapters covers two or so pages, with around 50 per cent being illustration. For example, "Scales" discusses the scales on fish, butterflies, reptiles and mammals. It explains how scales grow and shows 19 examples, with comments, from various animals.

Taxonomy is covered by a series of colourful diagrams using linked circles. Each circle is colour coordinated with the group it represents. In Animal Groups, vertebrates are orange and by seeking the orange tag on the top right of the page you get to a vertebrate page. Birds are coded purple, so you can now select the purple tagged pages for birds.

The book is packed with information. Each traditional class of animal has a page displaying photographs of representatives of all the major genera. For insects, there are beetles, bugs, moths, butterflies, ants, flies, grasshoppers and so on. In the attributes section, "Movement" covers walking, running, climbing, leaping, burrowing, slithering, sliding, flying, gliding and swimming. Where appropriate there are diagrams or graphs. Under "Breathing" [through lungs, spiracles, skin or gills], there is a graph of the dives by a Cuvier's Beaked Whale, showing it reaching 1900 metres. Under "Vision" you can see diagrams of how the eye is structured, the visible spectrum of light, and the difference between monocular and binocular vision, along

with seven photographs of very different eyes. The behavioural section covers hunting, feeding, defence, reproduction, raising young, societies, communication and intelligence. It is replete with pictures of animals fighting, scratching, migrating, building and digging.

The text has been written with great efficiency. No words are wasted, yet the message is clear and understandable. Younger children may need help with words like synchronous or pugnacious, but there are few such words. In general the authors use simple terms. However, each species depicted has a little table giving its Latin name and key characteristics.

As an editor I can see minor items I have issues with. The frog pages have a disproportionate representation of the gaudy tropical frogs over the common green-brown ones — it is not easy being green! I prefer to call *Naja haje* a Spectacled Cobra rather than an Egyptian Cobra. This snake has a wide distribution and, indeed, is now rare in Egypt. There is an inconsistent use of terms from the simple "odd-toed hooved mammals" [and not the scientific term Perissodactyla] to "Ranoides" [and not the simple "Typical Frogs"]. Some information is a little dated — the Bearded Tit is now called the Bearded Parrotbill. The type is very small, making it difficult to read for older people [I used magnifying glasses]. But these are really only editorial quibbles, and are not likely to be noticed by most people.

While much of the information will be known to experienced naturalists, they will still enjoy this book, because it is so well presented. And there will be some new knowledge for everybody. I did not know there is a frog that eats berries [instead of bugs!]. So this is a super book to give to a young person or even an older one who has just developed a thirst for nature. It will be fun to share with younger children and grandchildren. It reminds us all of the fascinating, complex, fragile and colourful world of the animal kingdom.

ROY JOHN

2193 Emard Crescent, Ottawa, Ontario K1J 6K5 Canada

**Book Review Editor's note:** Continuing with our decision to investigate suitable websites and, if appropriate, include their reviews, I have written the following review. If others know of similar suitable sites and are moved to submit a review please contact me at [r.john@rogers.com](mailto:r.john@rogers.com).

## HBW IBC

By Josep del Hoyo <http://ibc.hbw.com/ibc/>

The Internet Bird Collection is sponsored by *Handbook of the Birds of the World* [HBW], Lynx Edicions, of Barcelona, Spain, and is a video library of birds. It is arranged in taxonomic order by order and family using the scientific name. English names follow in parentheses for each family. For example, Struthioniformes is followed by Struthionidae (Ostrich). When you click the family you will reach a listing, ordered by genus, and giving the scientific and English names. This is a very simple way to get to your species of interest. The introduction page has current notes on the status of the website and should be read.

The site currently contains over 27 000 videos of 5350 species or about 55% of the known list of birds. Each video is typically 30 or so seconds long, but this varies. Some of the birds covered have several videos while others have only one or two. For example: there are 19 videos of the Great Blue Heron and only one of the Chinese Egret. But take care, while the Great Blue sequence shows 19 different birds (including #14 amusingly described as "A bird walking on water"), the five views of Guam Rail are actually four of the same bird and one of a zoo specimen. If you want to see typical action both are good, but offer little about plumage variation for the rail.

Once you are at the species level you need either the English as given in HBW or the scientific name. Thus you must use Crested Honey Buzzard instead of the more widespread Oriental Honey Buzzard (or *Pernis ptilorhyncus*). Heuglin's Gull is a little more difficult. Before it was split it was in the Lesser Black-backed Gull complex, so it is included as *Larus fuscus* ssp. *heuglini*, Heuglin's Gull, under video 10 of that species. Recent splits like the Indian Blackbird [*Turdus similimus*] are not included. I was having problems finding the Brown-capped Pygmy Woodpecker, *Dendrocopus nanus*, until I discovered it as Brown-capped Woodpecker, *Dendrocopus moluccensis*.

## Frog

By Thomas Marent. 2008. DK Publishing, 375 Hudson Street, New York, New York 10014 USA. 280 pages. 30.00 USD, 33.00 CAD.

This is a truly spectacular coffee table book 12 3/8 by 11 3/8 inches by a master Swiss-born 42-year-old photographer who has travelled widely, often to remote areas, in his search for, and deep appreciation of, his subjects. His earlier books were *Butterfly* and *Rainforest*. The newest, *Frog*, is primarily built of over 400 spectacularly sharp colour photographs, often a full

Once you find your target species, you can then select from the list of videos available. These range in number from zero to over twenty. Each one is ranked, with five as the best. While five might mean the best photo, I often found the lower rankings more useful. The best photos were typically beautiful, close-up portraits of sitting adult birds. Lovely to look at, but not as informative of more distant shots of birds running through habitat or flying around. Zoo shots were the least useful, yet were better than none at all.

I have used this site for about a year now, generally for birds I hoped to see in the near future and with those actions I was not familiar (Greater Spotted Eagle, Greenish Warbler). I have also used it to verify identities of birds seen that cause uncertainty (Alder Flycatcher, Thayer's Gull).

The author of the site, Josep del Hoyo, makes frequent birding trips and brings back new videos. He is constantly adding to and upgrading the site. He has appealed to anyone who wants to share this task to supply a video. When he adds a video he also provides a link to the videographer. Here you can find a list of the donated videos and a short biography. Thus we can learn that Julien Rochefort of Paris has contributed 158 videos of European birds. Similar contributions have been made by others from around the world.

There is an option to play a "high quality" video, but I have been unable to connect to this feature. The quality of the "regular" videos is generally good and I have not the incentive to solve this problem.

This is a wonderful resource for all birders. It is particularly useful to open it twice and put the videos side by side. You can do this with birds that are difficult to separate (for example Chiffchaff and Willow Warbler) or two get two views of the same species under different conditions. And it will only get better.

ROY JOHN

2193 Emard Crescent, Ottawa, Ontario K1J 6K5 Canada

page for one individual or feature, of living amphibians. Most are frogs but with a few token salamanders—about 18 of the latter, on 13 pages (94-97, 132-133, 200, 268-273). A third group, the more secretive caecilians is not included. The salamanders selected are European (fire salamanders and newts) but the frogs range over the world. For these, a few European, North American, and Australian species are featured, but most are from the more diverse tropical frog faunas. Borneo, Madagascar, Peru, Colombia, and Costa Rica

are among the countries with included species. There are full top and side views of adults, but transforming juveniles, tadpoles and eggs and particular features such as eyes or skin are also included.

Marent emphasises in his introduction that there are some 6300 recognized species of amphibians, of which about 2000 are currently threatened with extinction due to habitat loss through human use expansion, exacerbated by co-increasing pollution, disease, collection for food or pets, and climate change. The text is sidebar photo captions inset throughout the book. Topics covered are identity (habitats, tree frogs, glass frogs, poison dart frogs, species variation: strawberry poison dart frogs, mantellas, other frogs, toads, newts and salamanders), body form (eyes, ears, nostrils, feet and legs, skin), survival (feeding, methods of movement, night versus day, camouflage, using poisons, last line of defense, unwanted competition) and reproduction (life

cycle, attracting mates, mating, sexual differences, spawn, tadpoles, froglets, newt reproduction).

The text concludes with a three-page listing of a conventional division into amphibian families, with common name, distribution, size (number of species) and brief description. Finally, there is a comprehensive index of both common and scientific names and topics, and brief acknowledgments.

This is a beautiful and superbly produced book full of interesting facts which bring the reader closer to an appreciation of the uniqueness and colourfulness of living amphibians more quickly than any field guide or textbook on them, though the latter have vastly more detail.

FRANCIS R. COOK

Emeritus Curator and Researcher, Canadian Museum of Nature, P.O. Box 3443, Station D, Ottawa, Ontario K1P 6P4 Canada

### Rattlers, Peepers & Snappers

By Vince Franke and Jim Andrews. 2008. Peregrine Productions LLC at [www.rpsdvd.com](http://www.rpsdvd.com). DVD. 24.95 USD,

Subtitled "The first complete DVD guide to all the amphibians and reptiles that breed in New England", one disc covers 52 species in these groups dynamically and with immediacy not possible in a static book format. Included are the majority of the species that occur in eastern Canada and it is relevant for herpetologists and naturalists over all of northeastern North America.

It is an ideal learning or teaching tool. The subject is covered effectively and in depth in some three hours and includes, in individual sections, identification and life history of each species through diagnosis by live-action outings to view habitat and behaviour with discussion by a varied lot of researchers. As well there are fact sheets, quizzes, "resource pages" and the calls of each frog species. The amphibian program covers varied topics: spring migration, road crossings, vernal pools, stream salamanders, finding frogs, and Wood Frog research while the reptile program includes, snakes and skinks, Box Turtle research. Timber Rattlesnakes, worm snakes, tracking Racers, Copperheads, fall migration, turtle tunnels, and nesting turtles.

For this production Jim Andrews is joined by Vince Franke of Peregrine Productions whose superb field photography day or night, terrestrial or aquatic, is a

perfect companion for the commentaries by Andrews and others. Andrews has long established himself as Vermont's premier promoter of herpetology and spear-headed *The Atlas of the Amphibians and Reptiles of Vermont December, 2001* by James S. Andrews and 1400 dedicated volunteers and organizations (see book review *Canadian Field-Naturalist* 116(4): 666-667).

The accuracy and immediacy of the new DVD is a model for any future efforts elsewhere. It promotes a greater understanding of these creatures, the immediate need and means for their effective conservation, and for the accurate recording of further observations to augment our understanding of their distribution and behaviour. Viewed in total or as short topical segments (individually readily accessible from the menu), the visual quality, the enthusiasm for the subject portrayed, and the accuracy and scope of the material presented are truly outstanding. From the casual to the serious, beginner to veteran naturalist, every viewer can gain from this production a greater understanding of the diversity and the conservation imperative of these fascinating animals and of the people who are their dedicated observers.

FRANCIS R. COOK

Researcher Emeritus and Research Associate, Canadian Museum of Nature, Box 3443, Postal Station D, Ottawa, Ontario K1A 6P4

### BOTANY

#### Aromatic Plants in China

By Wang Yumei. 2008. Science Press, Beijing, China. 1069 pages, 180.00 CNY.

Aromatic plants are plants whose vegetative or reproductive organs are able to secrete or accumulate essen-

tial oil, volatile aromatic oil, or spice substances or volatilization-difficult balata used as the raw materials for daily life or industrial production. The majority of aromatic plants are seed plants. Volatile aromatic sub-

stances are secondary products generated through a series of enzymatic reactions in some aromatic plants. These substances may function to prevent or repel invasions of pathogens or pests, or to lure or attract pollination insects. The substances are usually secreted by glands, and exist in at least one of the organs, such as roots, stems, leaves, flowers, fruits and seeds. In plants, most of them are usually in free states, but some are combined with sugar, forming glycosides.

Aromatic plants usually contain four ingredients, aromatic, medicinal, nutrient and pigment. In addition, they sometimes also contain antioxidants and anti-bacterial ingredients, which not only increase their value, but also widen the area of use. They can be used as aromatic plants, medicinal herbs, food, ornamentals, or even as natural anti-bacterial or anti-corrosion agents or anti-oxidants.

In ancient times, Egyptians, Chinese, Mesopotamians, Greeks and Romans had begun to use aromatic plants for sterilization, anti-corrosion, medical care, health care, beauty and preservation of body, and so on. From the 13th century, distillation began to be the method used to extract oil from aromatic plants. Until the 16th century, Europeans successfully extracted essential oils, such as turpentine, rosemary oil, and lavender oil from the aromatic plants. Since the 19th century, with the development of science and technology, the exploration and use of the aromatic plants have rapidly expanded. So far, the world has discovered nearly 100 families, 200 genera, and more than 3600 species of aromatic plants, most of which are distributed in the tropical and subtropical regions. By the early 1980s, China had discovered more than 350 species of aromatic plants, among which about 150 species have been commonly used in the production of spices. The geographical distribution areas of the aromatic plants in China are over virtually all of the country. Some provinces and autonomous regions have become important bases for cultivation of aromatic plants.

Obviously, effective exploitation, utilization and protection of the aromatic plant resources need to recog-

nize the background information, summarize the present knowledge and carry out further researches in detail and in depth. The timely publication of the book *Aromatic Plants in China* meets such demand in at least some of these aspects. The book is a systematic and comprehensive monograph of the aromatic plant resources and their present status in China. The book was written based on countrywide data from an investigation on the aromatic plant resources, and the large amount of literature on the aromatic plants in China and abroad. The book is divided into two major parts, general introduction and special issues. The 632 color pictures are particularly helpful for readers to recognize and identify the aromatic plant species. In the first part, the basic knowledge of the aromatic plants, is introduced in categories of aromatic plants, their distributions, productions, main ingredients, functions, extraction, processing and uses, etc. In the second, the characteristics of each family, genus and species of the thousands of aromatic plants is given in detail, with Latin name, alias, English name, origin, distribution, biological characteristics, main points of cultivation techniques, main ingredients of essential oils, and the present situation of usage. At the end of the book, the strategies for the further exploitation, use and protection of the wild aromatic plant resources in China were put forward.

The book is suitable for the persons who engage in biology, agronomy, forestry, horticulture, plant chemistry, and other related scientific fields. Those who carry out investigation, cultivation, identification, research, processing, marketing, or use of the aromatic plants, will find it particularly useful. It will be valued by any persons who are interested in the aromatic plants.

LI DEZHI<sup>1</sup> and QIN AILI<sup>2</sup>

<sup>1</sup>Laboratory of Urbanization and Ecological Restoration of Shanghai; National Field Observation and Research Station in Tiantong Forest Ecosystem of Zhejiang; Department of Environmental Science, East China Normal University, 3663, Zhongshan Road (N), Shanghai, China 200062

<sup>2</sup>Jilin Forestry Staff School, Jilin, China 130000

**[Book Review Editor's note.** Aweto is a Maori name for Dong Chong Tsia Tsiao (winter caterpillar summer grass). This is the caterpillar of a moth *Hepialus armoricanus* (Lepidoptera: Hepialidae) infected with an obligate fungus *Cordyceps sinensis* (Clavicipitales, Ascomycotina). The caterpillar lives underground in alpine grasslands in Tibet and the Himalayas for five years where it is attacked while feeding on roots. The fungus invades, killing and mummifying the larvae near the tops of their burrows. The 5-15 cm fruiting body emerges from the ground in spring from the forehead of the caterpillar, like "summer grass." The medicinal agent is likely Cordycepin, or 3-deoxyadenosine. Most aweto sold as pills in the west are probably fake or nearly so.]

## Aweto in China

By Northwest Plateau Institute of Biology, CAS and Institute of Drug Quarantine of Qinghai Province, 2008, Shaanxi Science and Technology Publishing House, 744 pages, Price: 120 CNY.

Aweto is the complex of the stroma of *Cordyceps sinensis* parasitizing the larva of *Hepialus armoricanus* living through the winter. As a special organism, aweto is characterized by a worm in winter and a grass in sum-

mer, which is also the origin of its Chinese name. At present in the world, there are more than 400 species of fungi in the genus of *Cordyceps* parasitizing the larvae of insects, spiders and other organisms forming the carposporophyte, among which there are 68 species in China. In China, aweto resource is distributed in Sichuan, Yunnan, Guizhou, Gansu, Qinghai, Tibet and other areas.

Some scholars in China and abroad regarded all the fungi of *Cordyceps* parasitizing other types of organisms forming the carposporophyte as the aweto. However, the traditional Chinese medicinal theory, and most Chinese scholars, only regarded the aweto as *Cordyceps sinensis* parasitizing the larva of the organisms in Insecta, Lepidoptera, Hepialidae and *Hepialus* distributed in the alpine meadow areas of Qinghai-Tibet Plateau of China, form the complex of larva and fungi.

Aweto is one of the three most precious medicinal herbs and tonics. It is well known world wide due to its strange morphology, abundant nutrient, and magical medicinal effects. It is believed to benefit without the harm of ginseng. The ingredients of aweto are adenosine, mannitol, aweto acid, polysaccharides, and other bioactive chemicals. It is reported that the main pharmacological effects of aweto are regulation of human immunity functions, hormone-like effects, restraining cough, protection of kidney, strengthening the hematopoiesis, anti-aging, diminishing the rejection effects of organ transplants, inhibition of lupus, decrease of blood sugar, and anti-tumour properties. Among more than 800 Chinese medicinal herbs, aweto is the only type with dual effects of complement for both Yin and Yang according to the traditional Chinese medicinal theory. In ancient times, aweto was an exclusive tribute to the aristocracy in the royal palace in China.

In recent years, because of the high prices in the market, more and more people have plucked aweto in China, the so-called soft gold, unregulated, just like the "gold rush" in the western United States in the middle period of the 19<sup>th</sup> century. However, due to its scarcity in nature and the rapid increase in demand, the habitat of aweto were seriously damaged or even desertified. Aweto as a resource is decreasing rapidly and becoming more and more endangered. Nowadays, aweto has

been listed as a national key protected wild plant of level-II in China. The protection and research on the natural aweto resources are becoming imperative.

The book *Aweto in China* is the first comprehensive and systematic monograph on the various aspects of aweto resources in China, including the properties, biological basis, ecological characteristics, life history pattern, biological engineering, characteristics in herbal science and pharmacognosy, pharmacological effects, chemical ingredients, its role in health care, its other various applications, its research history and the present states of aweto resources.

The book contains 9 chapters, 41 sections, and more than 220 figures. The main contents are as follows: Chapter 1 fungus and aweto, Chapter 2 basic biological research on aweto, Chapter 3 ecological research on aweto, Chapter 4 research on the biological engineering of aweto, Chapter 5 chemical research on aweto, Chapter 6 herbal science and pharmacognosy of aweto, Chapter 7 pharmacological research on aweto, Chapter 8 roles of aweto in medicine and health care, and Chapter 9 research on the roles of aweto in biological control.

The book was well written with few errors, and can be easily understood by non-scientists. Abundant illustrations are helpful for readers to easily understand the explanations. The book is suitable for readers who engage in biology, taxonomy, agriculture, medicinal plants and other related fields, or other persons who are interested in aweto.

LI DEZHI<sup>1</sup> and QIN AILI<sup>2</sup>

<sup>1</sup>Laboratory of Urbanization and Ecological Restoration of Shanghai; National Field Observation and Research Station in Tiantong Forest Ecosystem of Zhejiang; Department of Environmental Science, East China Normal University, 3663, Zhongshan Road (N), Shanghai, China 200062

<sup>2</sup>Jilin Forestry Staff School, Jilin, China 130000

## Chinese Wild Orchids

By Chen Xinqi, Ji Zhanhe and Luo Yibo. 2008. Science Press, Beijing. 416 pages, Price: 260 CNY.

Orchidaceae is one of the largest and most diverse families in Angiospermae. Orchids have been regarded by some scholars as reaching the culmination of the evolution of plants. So far, Orchidaceae contains more than 700 to 800 genera and 25 000 to 30 000 species, and more than 100 000 hybrid species and varieties. In China, there are about 174 genera and more than 1300 species in Orchidaceae. Orchids are mainly distributed in Asia and America, especially Central and South America. According to the living habits and growth forms, orchids generally can be divided into three categories: the terrestrial orchids, epiphytic orchids, and saprophytic orchids (very rare in many other plants). In his classic work, Darwin (1862) used the theory of evolution to explain the adaptation and evolution of orchid plants based on a mass of facts and

detailed tests and observations. Although there were some mistakes in his explanations, most of the conclusions are still reliable nowadays. After Darwin, orchids have attracted more and more researchers all over the world.

Chinese orchids usually have beautiful slender leaves and faintly-scented flowers. The quiet elegance of orchids has been deeply advocated and praised by the Chinese people for thousands of years. The character of orchids was compared to a man of honour by Confucius in his book, *Dialogue at Home*. Orchids not only have been popularly used as ornamental plants, but some also have been used as medicinal plants, spices and so on. The cultivation of orchid plants has a long history in China and the world.

The wild orchid plants are not used intensively at present, but they are of potential value in the future, and they are also important as a natural gene pool.

Thus, from any point of view, the wild orchids should be protected in appropriate ways. However, in recent years, due to the rapid increase in the prices of orchids in domestic and international markets the wild orchid plants have been collected by people illegally. In addition, frequent and large scale logging and excessive land reclamation resulted in the habitats of wild orchid plants being destroyed or fragmented, and the number of valuable germplasm resources of wild orchids, especially the rare species, became endangered in some areas. Thus, the protection and rescue of the endangered resource of wild orchids in situ or ex situ is becoming more and more an imperative. The development of techniques for rapid propagation and cultivation of various orchid plants are also vital. In order to do this work more effectively, all-around recognition of past and current ecology and distribution of wild orchid plants is needed.

The book *Chinese Wild Orchids* is one of the largest and most comprehensive monographs illustrating the wild orchid resources in the world. The book was written in both Chinese and English, and includes 117 genera, 403 species and 2 varieties of Chinese wild orchids. The morphological characteristics, origin, habitat and

elevation of distribution, inflorescence time of each species was described in detail. Abundant first-hand information was included in the book. Most color photographs in the book were taken by the authors in the field, and many of them are being published for the first time. The book has strong scientific and practical values. Its publication will promote the research on orchids, exploitation and protection of the orchid resources, development of orchid industry, as well as the international academic exchanges in the field of orchids.

The book was written on the basis of textual research weighing almost every word. Abundant illustrations are helpful for readers to easily understand the explanations. The book is suitable for professionals who engage in botany, taxonomy, agriculture, forestry, horticulture, medicinal plants and other related fields.

LI DEZHI

Laboratory of Urbanization and Ecological Restoration of Shanghai; National Field Observation and Research Station in Tiantong Forest Ecosystem of Zhejiang; Department of Environmental Science, East China Normal University, 3663, Zhongshan Road (N), Shanghai, China 200062

**Book Review Editor's note:** The American Orchid Society has recently published a series of beautifully-illustrated articles on Chinese orchids in its journal *Orchids*.

### The Vascular Plants and Their Eco-Geographical Distribution in the Qinghai-Tibet Plateau Area

By Wu Yuhu. Science Press, Beijing, 2008, 1370pp, Price: 280.00 CNY.

The Qinghai-Tibet Plateau, with an average elevation of 4000 metres and covering an area of 2 300 000 square kilometres of land, is known as the "roof of the world" and the "Third Pole of the Earth". The formation and development of the Qinghai-Tibet Plateau since the Cenozoic is one of the most important events in the natural history of the Earth, because its uplift has a profound impact on the natural environment of vast adjacent areas. As a unique natural geographical unit and large ecosystem of the world, Qinghai-Tibet Plateau has become an ideal natural laboratory for carrying out research in the fields of geography, biology, ecology, resource and environmental science, and other related subjects.

The vast area and complexity of the environment of the Qinghai-Tibet Plateau provide diversified conditions for the growth and development of a large number of plant species. The complexity of the flora of the area lies in the abundant plant species, geographical elements and vegetation types. According to a rough estimation, there are about 10 000 higher seed plant species in the area. The area not only retains a number of ancient plant species, but also involves a lot of new plant species after the geological uplift. So far, the number of genera and species of the ferns, gymnosperms, and angiosperms being found in the Qinghai-

Tibet Plateau area accounts for 40% of the flora of China. Furthermore, nowadays the new records of plant species are frequently found in this area.

Since the 1850s, a number of foreign explorers and scientists successively carried out a variety of investigations in fields such as geology, geography, flora, fauna, as well as natural conditions and social customs, in the Qinghai-Tibet Plateau area, accumulating some preliminary information. From the 1950s, large-scale comprehensive scientific investigations organized by the central and local governments were carried out several times in the area, which laid a solid basis for studying the formation, evolution and natural resources of the Qinghai-Tibet Plateau area. Especially active were many botanists as backbone members participating in these investigations. They collected a large number of plant specimens, which became valuable data for the analysis of the flora of the area.

Based on the plant specimens collected in the Qinghai-Tibet Plateau area by former researchers, and the author's own first-hand data on the flora of the area accumulated in more than 30 years of investigations, as well as a large number of literature references in China and abroad related to the area, the book comprehensively addresses the vascular plants and their eco-geographical distribution in the Qinghai-Tibet Plateau area.

The book provides the Chinese and Latin names of each vascular plant family, genus and species currently found in the whole Qinghai-Tibet Plateau area, except for the area of Hengduan Mountains. For each vascular plant genus and species, the important morphological characteristics, the related primary literatures, distribution area, range of altitude and environmental characteristics are given in detail.

The book was scrupulously written and there are few errors. Abundant illustrations aid readers' understanding of the text. The book is suitable for professionals

who engage in botany, agriculture, forestry, geography and environmental resources and other related fields, as well as professional teachers and students, staff in production, application, and so on.

LI DEZHI<sup>1</sup> and QIN AILI<sup>2</sup>

<sup>1</sup>Laboratory of Urbanization and Ecological Restoration of Shanghai; National Field Observation and Research Station in Tiantong Forest Ecosystem of Zhejiang; Department of Environmental Science, East China Normal University, 3663, Zhongshan Road (N), Shanghai, China 200062

<sup>2</sup>Jilin Forestry Staff School, Jilin, China 130000

## ENVIRONMENT

### A Primer of Conservation Biology

By Richard B. Primack. 2008. Fourth edition. Sinauer Associates Inc., Sunderland, Massachusetts, USA. 349 pages. ISBN: 978-0-87893-692-2. Paperback.

This textbook is a useful and up-to-date introduction to the rapidly growing field of conservation biology, written mainly for undergraduate university students. In fact, I have used the previous edition of this book in my own conservation biology course, at York University's Glendon College, for the last four years. Due to its reasonably concise and generally well-researched coverage of many current topics in this field of study, *A Primer of Conservation Biology* is particularly useful for a half-year, or a one-term, introductory course.

Richard Primack, a professor at Boston University and the current editor-in-chief of the reputable scientific journal *Biological Conservation*, has also authored a more detailed, longer textbook titled *Essentials of Conservation Biology*, and this more complex book is suitable for a full-year, more advanced course. In fact, the author has produced new editions of both of these textbooks every few years, since 1993. This poses a bit of a challenge to professors who have been using a particular edition of one of the textbooks for a longer period of time, since, just as one becomes comfortable with a current version of the book, a new, generally longer and reorganized, edition comes along. However, the new editions can be justified by the rapid accumulation of new facts and studies in this dynamic field of biology, and the author has done his best to include numerous very recent and important references in the latest (fourth) edition of the *A Primer of Conservation Biology* textbook. In comparison to the previous edition, the current version of the book contains almost twice as many chapters (there are nine chapters now, as opposed to five chapters in the third edition), but these chapters are generally shorter than the ones found in the third edition. As a result, the new textbook is only a little bit (29 pages) longer than the previous version – a modest and manageable increase in size, from the point of view of a professor planning a short course based on the book. Furthermore, unlike the previous editions, which had only black-and-white diagrams and

figures, the current book has all the illustrations in full colour, and this certainly makes the textbook more appealing to look at and browse through.

The book also has a good index and a useful glossary, including many key terms in ecology and conservation biology. The reference section is detailed and up-to-date, and virtually each reference listed here is followed by the book chapter or chapters where the study was initially cited – a nice and useful touch. A list of selected environmental organizations and sources of information about conservation issues is provided in an appendix.

As always, with such fairly general textbooks, experts can take issue with aspects of the particular coverage of certain controversial topics of current interest. For example, the discussion of introduced species offered on page 111 simply repeats some of the standard points often made by certain invasion biologists. The Purple Loosestrife is cited as an example of an exotic European species which is currently taking over marshes in North America. However, there is no mention of a major study by Hager and McCoy (1998), where the authors reviewed all the available information and found no solid evidence in support of the notion that this much-maligned exotic plant has a negative effect on our wetlands. In fact, it seems that many insect species, including native ones, feed on this plant species (Diehl et al. 1997; Guiasu 2008). Such information would add a bit of much-needed balance to this discussion. Primack also mentions that introduced worm species “are currently altering soil conditions across North America, with potentially enormous, but largely unknown, consequences to the rich native underground biological communities”. Well, since this is a scientific textbook, perhaps we should wait for conclusive scientific evidence before making such sweeping and largely unsubstantiated statements. If the impact of certain introduced species is not currently known, and we do not have any clear evidence that they are causing any harm to the environment, then we should not make assumptions about their potential “enormous” negative impacts. This only

reveals the currently fashionable anti-exotic species bias of certain researchers, rather than any useful scientific facts.

However, despite such occasional problems, this is a useful and reasonably thorough book, which can provide a wealth of well organized information both to biology students and to members of the general public interested in vital current issues in ecology and conservation biology.

#### Literature Cited

Diehl, J. K., N. J. Holliday, C. J. Lindgren, and R. E. Roughley. 1997. Insects associated with purple loosestrife, *Lythrum salicaria*

L., in southern Manitoba. *The Canadian Entomologist* 129: 937-948.

Guiasu, R. C. 2008. Specious claims? ROM – The Magazine of the Royal Ontario Museum 40 (4): 26-33. (Spring 2008 issue).

Hager, H. A., and K. D. McCoy. 1998. The implications of accepting untested hypotheses: a review of the effects of purple loosestrife (*Lythrum salicaria*) in North America. *Biodiversity and Conservation* 7: 1069-1079.

RADU CORNEL GUIASU

Environmental and Health Studies Program, Department of Multidisciplinary Studies, Glendon College, York University, 2275 Bayview Avenue, Toronto, Ontario M4N 3M6 Canada

#### NEW TITLES

Prepared by ROY JOHN

† Available for review \* Assigned

Currency Codes - CAD Canadian Dollars, USD U.S. Dollars, EUR Euros, AUD Australian Dollars, GBP Great Britain Pound.

#### ZOOLOGY

**Threatened Amphibians of the World.** Edited by Simon N. Stuart, Michael Hoffmann, Janice S. Chanson, Neil A. Cox, Richard J. Berridge, Pavithra Ramani and Bruce E. Young. 2008. Lynx Edicions, Montseny, 8, 08193 Bellaterra, Barcelona, Spain. 776 pages, 124.00 EUR Cloth.

**Handbook of the Birds of the World. Volume 13.** Edited by Josep del Hoyo, Andrew Elliott and David A. Christie. 2008. Lynx Edicions, Montseny, 8, 08193 Bellaterra, Barcelona, Spain. 800 pages, 212.00 EUR Cloth.

**The Wisdom of Birds – An illustrated history of ornithology.** By T. Birkhead. 2008. Greystone Books, #201 - 2323 Quebec Street, Vancouver, British Columbia V5T 4S7. 448 pages, 42.05 CAD Cloth.

\* **The Inner Bird Anatomy and Evolution.** By Gary W. Kaiser. 2007. UBC Press, University of British Columbia, 2029 West Mall, Vancouver, British Columbia V6T 1Z2. 464 pages, 85.00 CAD Cloth.

**Handbook of the Mammals of the World. Volume 1.** Edited by Josep del Hoyo, Andrew Elliott and David A. Christie. 2009. Lynx Edicions, Montseny, 8, 08193 Bellaterra, Barcelona, Spain. 600 pages, 125 EUR Cloth.

#### BOTANY

**Botanical Riches – Stories of Botanical Exploration.** By R. Aitken. 2008. Ashgate Publishing, Suite 420, 101 Cherry Street, Burlington, Vermont 05401-4405. 256 pages, 40.00 USD

#### ENVIRONMENT

**Proceedings of the Arctic Biodiversity Workshop.** Edited by K. Iken and B. Konar. 2008. Alaska Sea Grant College Program, Box 755040, University of Alaska-Fairbanks 99775 USA. 164 pages, 7 USD

**Dynamics of the Bering Sea.** Edited by T. Loughlin and K. Ohtani. 2008. Alaska Sea Grant College Program, Box 755040, University of Alaska-Fairbanks 99775 USA. 840 pages, 40 USD.

**Resiliency of Gadid Stocks to Fishing and Climate Change.** Edited by G. Kruse, K. Drinkwater, J. Ianelli, D. Stram, V. Weststad and D. Woodby. 2008. Alaska Sea Grant College Program, Box 755040, University of Alaska-Fairbanks 99775 USA. 375 pages, 50 USD.

**Marine Habitat Mapping Technology for Alaska.** By J. Reynolds and H. Greene. Alaska Sea Grant College Program, Box 755040, University of Alaska-Fairbanks 99775 USA. Free – order online at : <http://seagrant.uaf.edu/bookstore/pubs/AK-SG-08-03.html>.