

(2) service values of water body ecosystems, (3) health assessment of water body ecosystems. Chapter XIV Atmospheric environment of terrestrial ecosystems of China, including (1) overview of the study on the changes of atmospheric environment within the network of CERN, (2) changes in radiation environment of terrestrial ecosystems, (3) changes in aerosol optical thickness of terrestrial ecosystems, (4) changes in atmospheric ozone concentration of terrestrial area. Chapter XV Some thoughts on strategic layout and development of CERN.

Compared with the book *Chinese Ecosystems*, written by Sun Honglie and published by Science Press, Beijing, in 2005, which generally summed up some typical ecosystems of China, the book *Comprehensive Research on Ecosystems in China* is deeper and

more detailed, and could be regarded as a sister book or a companion volume of the former. Hopefully this book would contribute to the deeper understanding of the various aspects of different Ecosystems of China. The book is suitable for the professionals who engage in ecology, biology, agriculture, forestry, water sciences or environmental sciences, or other persons who are interested in these fields.

LI DEZHI¹ AND QIN AILI²

¹Lab 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 Rd (N). Shanghai, China. 200062;

²Shanghai Vocational and Technical College of Agriculture and Forestry, 658 Zhongshan 2 Rd. Songjiang, Shanghai, China. 201600

Theoretical Basis and Practical Modes of Returning Farmland to Forest or Grassland

By Li Xianwei, Zhang Jian, Hu Tingxing, Luo Chengde. 2009. Beijing Science and Technology Press, 16 Xizhimen South Street, Beijing, China, 100035. 450 pages. 75.00 CNY.

For thousands of years, most of Chinese farmers have been bound to the land. They reclaim the lands around their living areas for crop cultivation, regardless of whether these lands are ecologically suitable for grain production or not, leading to serious environmental problems in some areas. The Chinese government made a strategic policy a few years ago to return some infertile and unsuitable farmland to forest or grassland to protect the environment of these areas.

In China, returning farmland to forest or grassland, or in other terms, the grain for green project, refers to ecological engineering to convert the present farmland located in unstable slope land, or desertified arable land, or ecologically important but fragile land, or the land with frequent or serious soil erosion, or lower grain production etc, to forest or grassland, so as to improve and protect the environment. Actually, such policy and practice has a long history in China. However, for a long time, such practices were only conducted in sporadic areas. In the world, at least as early as the 20th century, in the United States there was a precedent of successful practice of returning farmland to forests, especially in the state of New York. In China, the project is mainly implemented in about 20 provinces, cities and regions in north, west and central China. The natural environments and social conditions of these areas are mostly quite harsh and poverty stricken. These include places such as the inaccessible mountainous or semi-mountainous areas with little valley or plains, arid or semi-arid areas, both sides of the sources of rivers, areas around the lakes and reservoirs, etc.

Returning some farmland to forest or grassland is an urgent need in some areas with fragile and degraded environment, and of importance for restoration, protection and construction of the environment in these

areas, and long-term survival of millions of local people and development of the local economy. At present, in China, about 37.5% and 18.2% of land areas suffer from soil erosion and desertification, respectively, which mainly resulted from blindly practising long-term deforestation and reclamation. According to a national survey of land resources, the slope farmland with above 25 degrees makes up 6.06 million km². The deforestation and reclamation increase the arable land area and subsequent grain production came with high environmental costs. The middle and upper reaches of the Yangtze and Yellow River have become one of the most serious soil-eroded areas in the world, due to the deforestation and reclamation on steep slopes of the river banks. Two-thirds of more than 2 billion tons of sediment flowing into the Yangtze and Yellow River each year come from the slope farmland, which further lead to the siltation of rivers and lakes, and increase the flooding or water shortage in lower reaches.

In China, the implementation of the project of returning farmland to forest or grassland, not only can fundamentally solve the problem of soil erosion, effectively enhance the capacity of water conservation, improve the environmental quality, increase the capacity of water logging-prevention and drought-resistance, increase the productivity of existing farmland, change the traditional farming habits, adjust and optimize the industrial structure in rural areas, promote the local economic development, help people to eliminate poverty, promote the development of the industry and agriculture in these areas, but also can provide ecological protection for the middle and lower reach areas, as well as the healthy and sustainable development of the environment, society and economy of the whole country. The project of returning farmland to forest or grassland is one part of the national strategy of sustainable

development taking into account the ecological, economic and social effects. As a win-win deal, it will make barren hills green while bringing benefits to farmers. With ample supplies of grain and other agricultural products, China is currently in a good position to accelerate the project, and the rural households, subsidized with free grain, seeds and seedlings as well as cash for living expenses, were enthusiastic to participate in the project.

Practices in recent years have proved that the project of returning farmland to forest or grassland has played active roles in ecological, economic and social aspects both locally and national wide. Therefore, to summarize the theoretical basis and practical modes of returning farmland to forest or grassland in time seems to be very necessary. The publication of the book *Theoretical basis and practical modes of returning farmland to forest or grassland* exactly meets such demands.

The book started from the systematically elucidation of the history of returning farmland to forest or grassland, then discussed the concept, theoretical basis and technical modes of such ecological engineering in detail. The main contents are as follows: Chapter 1, review on the history of returning farmland to forest; Chapter 2, degraded ecosystems of steep slope farmland; Chapter 3, theoretical basis for returning farmland to forest; Chapter 4, industrial modes and techno-

logical modes for returning farmland to forest; Chapter 5, the vegetation structure and yield characteristics of the forest-grass complex modes; Chapter 6, fine root characteristics of the forest-grass complex modes; Chapter 7, species diversity of the forest-grass complex ecosystem; Chapter 8, soil amelioration and nutrient management of the forest-grass complex modes; Chapter 9, soil and water ecology and conservation in the forest-grass complex modes; Chapter 10, economic effects of the forest-grass complex modes; Chapter 11, theoretical basis and methods for sustainable development of the forest system returned from farmland; Chapter 12, sustainable management strategies of the forest system returned from farmland.

This book would become a good reference for the persons who are engaged in restoration ecology or ecological engineering, forestry, agriculture and environmental science, etc, as well as teachers and students who major in the relevant fields, or any other persons who are interested in this field.

LI DEZHI¹ AND QIN AILI²

¹Lab 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 Rd (N), Shanghai, China. 200062

²Shanghai Vocational and Technical College of Agriculture and Forestry, 658 Zhongshan 2 Rd. Songjiang, Shanghai, China. 201600.

NEW TITLES

Prepared by Roy John

† Available for review * Assigned

Currency Codes – CAD Canadian Dollars, USD U.S. Dollars, EUR Euros, AUD Australian Dollars.

ZOOLOGY

* **Amphibian Biology – Volume 8, Amphibian Decline.** Edited by Harold Heatwole and John W. Wilkinson. 2009. Surrey Beatty & Sons, 43 Rickard Road, Chipping Norton 2170, NSW, Australia. 330 pages. 157 USD Cloth.

* **Amphibian Ecology and Conservation: a Handbook of Techniques (Techniques in Ecology & Conservation).** Edited by C. Kenneth Dodd Jr. 2009. Oxford University Press, 70 Wynford Drive, Don Mills, Ontario M3C 1J9. 584 pages. 32 GBP, Paper.

Bats of Britain, Europe and Northwest Africa. By Christian Dietz, Otto von Helversen, and Dietmar Nill. 2009. Christopher Helm, A&C Black, 37 Soho Square, London W1D 3QZ United Kingdom. 56 USD Cloth.

* **The Birds of Barbados.** By P. A. Buckley, E. B. Massiah, M. B. Hutt, F. G. Buckley, and H. F. Hutt. 2009. British Ornithologists' Union, P.O. Box 417, Peterborough PE7 3FX United Kingdom. 295 pages. 40 GBP, Cloth.

Collins Bird Guide: The Most Complete Guide to the Birds of Britain and Europe. By Lars Svensson, Killian Mullarney, Dan Zetterstrom and Peter J Grant. Edition 2 March 2010. Harper Collins Publishers Ltd. 1995 Markham Road, Scarborough, Ontario M1B 5M8. 30 USD Paper.

* **A Photographic Guide to the Birds of Jamaica.** By Ann Haynes-Sutton, Audrey Downer, Robert Sutton, and Yves-Jacques Rey-Millet. 2009. Princeton University Press, 41 William Street, Princeton, New Jersey 08540. 304 pages. 29.95 USD, Paper.

* **Birds of Eastern North America and Birds of Western North America.** By Paul Sterry and Brian E. Small. 2009. Princeton University Press, 41 William Street, Princeton, New Jersey 08540. 335 and 416 pages. 18.95 USD. Paper.

* **Corvus – A Life With Birds.** By E. Woolfson. 2009. House of Anansi Press Inc., 110 Spadina Avenue, Suite 801, Toronto, Ontario M5K 2K4. 337 pages, 17.95 CAD, Paper.

Erratum The Canadian Field-Naturalist 126(4)

In response to the review of *Contributions to the History of Herpetology*. CFN 126(3): 344-345, the book's editor Kraig Adler pointed out (personal communication to FRC 12 May 2013): "Only one small correction. Mrs. Martof used a kitchen knife, not a gun. She told the police she slipped while cutting some pizza. But Bernie was stabbed up under his rib cage several times!"

Erratum The Canadian Field-Naturalist

It has come to our attention that sections of many of the book reviews by Li Dezhi and Qin Aili were copied from sources without attribution. The journal and the authors apologize for this oversight.