BOOK REVIEW

R. Ricklefs, R. Relyea : ECOLOGY: THE ECONOMY OF NATURE. Seventh edition. – W. H. Freeman and Company, A Macmillan Higher Education Company, New York, Paperback, 2014, 565 p., ISBN-13 978-1-4292-4995-9.

The time-proven textbook (first edition in 1976 written by the first author) offers a survey of ecology repeatedly filled in new knowledge. The work presents examples from natural history, coverage of evolution, and quantitative approach to nature. It includes 20 data analysis modules that introduce students to ecological data and quantitative methods used by naturalists. As the title suggests this book emphasizes the common base and etymological origin of ecology and economy - branches widely accepted by public but in different meanings (analogy reflected in our another bookreview; Kovář, 2012). Question "How to see both spheres of life, if contradictory or complementary fields?" is outlined in the work heading.

We have the text that defines the introductory ecology course by the way of embracing the challenges and opportunities of teaching ecology today. It has been completely rewritten for today's undergraduates—with immediate examples illustrating particular themes. It is also integrated with the media resources. Modernized in a new format of 23 chapters, it is manageable for a one-term course. Chapters are organized around four to six key concepts that are repeated as major headings.

Contents: 1. Introduction: Ecology, Evolution, and the Scientific Method PART I: LIFE AND THE PHYSICAL ENVIRONMENT 2. Adaptations to Aquatic Environments 3. Adaptations to Terrestrial Environments 4. Adaptations to Variable Environments 5. Climates and Soils 6. Terrestrial and Aquatic Biomes PART II: ORGANISMS 7. Evolution and Adaptation 8. Life Histories 9. Reproductive Strategies 10. Social Behaviors PART III: POPULATIONS 11. Population Distributions 12. Population Growth and Regulation 13. Population Dynamics over Space and Time PART IV: SPECIES INTERACTIONS 14. Predation and Herbivory 15. Parasites and Pathogens 16. Competition 17. Mutualisms PART V: COMMUNITIES AND ECOSYSTEMS 18. Community Structure 19. Community Succession 20. Movement of Energy in Ecosystems 21. Movement of Elements in Ecosystems PART VI: GLOBAL ECOLOGY 22. Landscape Ecology, Biogeography, and Global Diversity 23. Global Conservation of Biodiversity APPENDICES Reading Graphs; Statistical Tables; Answers to Analyzing Ecology and Graphing the Data Exercises; Suggested Readings; Glossary; Index.

The authors declare a new vision for the seventh edition in Preface: The chapters contain substantially more figures showing real data with a better balance between terrestrial and aquatic systems. These novelties give students more experience in seeing and interpreting scientific data from a wide range of systems. Moreover, ecological applications are integrated with ecological theory throughout the entire book rather than concentrated to a final chapter. Chapter 22 accents landscape ecology in relations to biogeography and diversity at global scale which is quite new against the previous edition, and so interesting in the context of our journal. The book considers many scales of nature structuring and diverse habitats. The way of visual presentation shows that science is an ongoing process (how scientists begin with hypotheses and test them with data that the students can view and interpret).

There are lots of choices about textbooks in general ecology, however, this one belongs probably to the most advanced undergraduate ecology text with the impact to the personal knowledge enrichment.

Those two are probably the most advanced undergraduate ecology texts. But there are lots of choices out there.

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REFERENCES

Kovář, P. (2012). P. Kareiva, Talls H., Ricketts T. H., Daily G. C., Polasky S. (Eds.): Natural capital. Theory and practice of mapping ecosystem services. – Oxford University Press, Oxford – New York etc., Paperback, 2011, 365 p., ISBN 978-0-90-958900-5. *Journal of Landscape Ecology*, 5(2): 98-99.

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