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BOOK REVIEW: STRUCTURES AND FUNCTIONS OF A PLAIN HYDROGRAPHIC BASIN SYSTEM. STRUCTURE AND PRODUCTION OF GASTROPOD POPULATIONS (CASE STUDY) (Olivia CIOBOIU, EDIT. ANTHEO, CRAIOVA, ROMANIA, 2014, 194 pages)

Gabriel C. CORNEANU[1] and Mihaela CORNEANU[2]

1. University of Craiova, Romania, E-mail: gabicorneanu@yahoo.com
2. Banat University of Agricultural Sciences and Veterinary Medicine of Banat King Mihai I, Timisoara, Romania, E-mail: micorneanu@yahoo.com

The monograph study *Structures and functions of a plain hydrographic basin system. Structure and production of gastropod populations (Case study)*, elaborated by Olivia Cioboiu, PhD from the Oltenia Museum from Craiova, offers the Romanian and foreign specialists (grating of an ample abstract in English of 21 pages, five annexes of 33 pages and a rich iconographic material), a comprehensive study, based on a 18-year research, in the plain hydrographic system known as the Preajba Valley, from the lower basin of the Jiu river (Dolj County). This basin system is covers an area of 30 km^2, displaying a diversity of ecosystems: small hills with pastures and hay fields, farming plots and a complex hydrographic network represented by springs, rivulets, rivers, swamps and small reservoirs. This monograph study is structured in six chapters grouped in two parts. In the first part, there are presented: The ecological features of the reservoirs (Chapter 1), Physical-chemical, morphological and hydrological structures of Preajba Valley reservoirs (Chapter 2), Chemical and biocoenotic structure of the reservoirs (Chapter 3). The second part refers to the case study specified in the volume title, respectively the structure and production of gastropods from these reservoirs. The

performed analyses are detailed in the last three chapters: Present state of knowledge of gastropods – taxonomic, ecological and biogeographical considerations (Chapter 4); The gastropods from the small reservoirs Preajba Valley – population structure (Chapter 5), and Biomass variations, a reference factor for gastropod production (Chapter 6).

On the basis of proper researches and comparison with other studies from the specialised literature, Dr. Olivia Cioboiu considers that the ecological evolution of the aquatic continental ecosystems is influenced by two major human activities: pollution and hydrotechnical works that modify the structure and functions of natural ecosystems.

The phytoplankton analysis from these ecosystems enabled the identification of 78 taxa, at which it was established the numerical and biomass diversity, which emphasized an eutrophic system. The zooplankton is represented by 65 species of Ciliata, Testacea, Rotifera, Cladocera and Copepoda. The benthos is made up of Gammarida, Isopoda, Oligochaeta and Gastropoda, the benthic level being made up of three facies types (sandy, muddy and detritic), which determine the benthic biocoenosis structure. There has to be underlined that there were identified 18 Gastropoda species, 5 of them being new~~s~~ for the Danube hydrographic basin, the Romanian sector.

After the recent evaluation (Cioboiu, 2011, 2014) there are 107 gastropod species in the continental waters from Romania. The author presents the number of gastropod species in different ecosystems, from plain to alpine and glacial lakes. A distinct chapter is reserved to the analysis of 'The gastropods of the small reservoirs Preajba Valley – population structure' (Chapter 5). There are presented the freshwater gastropods from different faunistic provinces from Romania, as well as the taxonomic component of gastropods from the small reservoirs from the Preajba Valley, their spatial distribution, the structure on age classes, the biocoenotic structural indices, and the numerical variation of the populations. The productivity of gastropods was analysed through biomass variation, being evidenced the seasonal variation and biomass dynamics in relation with numerical density.

The analysis of the structure of gastropod populations and of the quantitative values regarding the numerical and biomass components reveals that the small reservoirs from the Preajba Valley present a high trophic degree. The photos, tables and graphics which accompany the text, contribute to the adequate illustration of the studied areas, as well as to the analysis and interpretation of the approached processes. The annexes underlined their importance in the evaluation of the results of the researches (Annex 1. The pyramid of the age of gastropod populations; Annex 2. The frequency of gastropods from lakes; Annex 3. The relative abundance of gastropods; Annex 4. Gastropod species distribution in relation to the ecological significance index; Annex 5. Affinity coefficients of the gastropod populations).

The monographic study is based on a rich specialised Romanian and foreign bibliography. Among the Romanian specialists we mention: Antonescu C.S., Bănărăscu P., Botnariuc N., Brezeanu Gh., Buşniţă Th., Drugescu C., Gâştescu P., Grossu Al.V., Miron I., Negrea Şt., Negrea Alexandrina, Stugren B., etc. Among the foreign specialists, there are: Barbault R., Bosche E.G., Csanyi B., Cuttelod A., Dussat B., Gloer P., Jungen H.J., Russev B., Wetzel R., etc.

We consider that the monographic study elaborated by Dr. Olivia Cioboiu contributes at the knowledge of the structure and functions of a plain reservoirs system. In comparison with other studies with similar content (Rogoz, 1980; Marx Madeleine, Victoria lake, Dolj, 1968, etc.), the monograph elaborated by Dr. Olivia Cioboiu, presents a peculiarity as on a relative small area of 30 km^2, there are grouped diverse ecosystems (freshwater, rivulets, river, swamps, small reservoirs), together with hill vegetation and agriculture areas, having thus an unique character in Oltenia Plain and in Romania. Different aspects from this monograph (and implicitly from her Doctoral Thesis) were presented (as unique author or in collaboration), at different scientific manifestations, being published in prestigious scientific journals such as: Limnological Reports, Vienna, 2006; Proc. Hydro Predicts (Praga, 2008); Kotor, Montenegro, 2006; Conferinţa a VI-a zoologilor, Republica Moldova, Chişinău, 2008; Verh. Intern. Verein Limnol., Stuttgart, 2008; Lymnological Reports, Proceedings of the 38-th

IAD Conference, Dresden, 2010; Oltenia, Studii şi Comunicări, Craiova, 2011, 2013; the 15th World Lake Conference, Perugia, 2014, a/o.

The importance of this study is illustrate in the preface elaborated by the scientific researcher Ştefan Negrea, PhD, from the *Emil Racoviţa* Speology Institute of the Romanian Academy, a reputable personality in the field of Limnology internationally recognized.

Finally, we use the considerations of Olivia Cioboiu, the author 'the final conclusion is that the physical-geographical, hydrological and biocoenotic factors, characteristic to the studied area, represent a real natural laboratory that proves the way anthropogenic factors determine the change of the natural ecosystems and the development of other structural and functional relations in the framework of this complex ecosystems'.