

===== **METHODS OF MAINTENANCE AND PRESERVATION OF ECOSYSTEMS** =====  
**AND THEIR COMPONENTS**

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**NEW METHOD OF CAMERA TRAP USAGE TO EVALUATE DIVERSITY  
AND DETERMINE CHARACTERISTICS OF MAMMALS IN THE VARIOUS HABITATS  
BY THE EXAMPLE OF ZEYA NATURE RESERVE<sup>1</sup>**

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In this article we studied a new method to evaluate the mammals' diversity, based on the analyzed data of 3 camera traps, placed in the various biotopes of Zeya Nature Reserve. They were set in the sub-alpine spruce forest (from March to November in 2018, from February to August in 2019), in the oak forest with black birch (from February to October in 2019), and in the willow complex near riverbed (from October to December in 2019). Unlike the well-known methods to evaluate population density with camera traps, this one does not require recalculation coefficients which represent mobility of the accounted species. We compared the collected data with the results of the standard methods of mammals' density evaluation, such as winter routing, multi-day census on a particular plot and census by the encounters on transects. We demonstrate the potential of the said method to evaluate quantitative characteristics of the seasonal dynamics of population, and local concentrations of brown bear, wild boar and Manchurian wapiti in the various biotopes of the Eastern part of the Tukuringra Ridge. We also listed the main advantages and limitations of the said method.

*Keywords:* camera trap, terrestrial animals, new methods of species richness evaluation, Zeya Nature Reserve.

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