

ONTOGENY POLYVARIANCE OF PEDUNCULATE OAK IN PINE FORESTS OF THE BRYANSK POLESIE

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Abstract. The ontogeny of pedunculate oak (*Quercus robur* L.) in green moss pine forests has been studied. The authors use the concept of the biological age of plants and the idea of polyvariant development of individuals. It has been shown that 11 ontogenetic stages are distinguished in the ontogeny of oak: seeds, seedlings, juvenile individuals, immature individuals (2 subgroups), virginile individuals (2 subgroups), young generative, mature generative, old generative trees, as well as senile individuals. A detailed description of these stages is given. It was revealed that oak trees in pine forests develop individuals according three levels of vitality – reduced, low and extremely low (sublethal). Individuals with reduced vitality develop in large gaps, low vitality – in small gaps, and extremely low vitality – under the forest canopy. Oak individuals with reduced vitality, that gradually increasing their power in large gaps, become edificators of the forest community. Plants with low and sublethal vitality form a population reserve, which is represented by many depressed individuals. Their development is significantly delayed in the pregenerative period in anticipation of an improvement in the light regime. The ontogenetic stages of the oak identified in the paper can be used to analyze the demographic structure and to predict the development of its populations in plant communities.

Keywords: *Quercus robur*, biological age of plants, ontogenetic stages of plants, vitality of plants, low light adaptations, senescence of plants

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