

Streszczenie pracy doktorskiej:

In this doctoral dissertation, types and developmental patterns, and biometric traits of vegetative organs of *Utricularia* subg. *Polypompholyx* were investigated by scanning electron and light microscopy and by multivariate analyses on data collected. Results showed that subterranean organs were characterized by various combinations of root, stem, and leaf traits, based upon respective developmental processes. Homology and homeosis of organs were found in seedlings of *Utricularia* and *Genlisea*, and on runner stolon nodes of *U. dichotoma* s.l.. Due to these dynamics, especially amphibious and emergent *Utricularia* taxa may flexibly respond to changes in the habitat. Adaptations to the hydric environment were morpho-anatomically evident by simplifications of vascular elements, reductions of supporting tissues and typical root traits, thin and narrow leaves and aerenchyma formation. Comparative investigations between genera of the Lentibulariaceae suggest that the *Genlisea-Utricularia* ancestor relocated developmental processes for root and leaf (carnivory) of a *Pinguicula*-like plant in subterranean traps and stolons. In *Polypompholyx*, nine stolon types were described and found to be strongly linked to taxonomic groups and seasonality, indicating that stolons differentiated along with speciation during drastic climatic changes in Australia.



acceptuję

