

Close encounters with *Clathrus ruber*, the latticed stinkhorn

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Considerable variation in the height of the carpophores of *Clathrus ruber* Mich.: Pers. was observed, ranging from a mere 8 cm for Spanish and French collections to more than 20 cm among the *Clathri* growing in a park at Ouchy (Lausanne) on Lake Geneva. Chemical investigation of collections from that site confirmed that *C. ruber* accumulates manganese, just as other stinkhorns do. In all probability, this metal plays a role in the biochemistry of the fungus, notably in the enzymatic liquefaction of the gleba with simultaneous formation of odorous compounds. *Clathrus* eggs were subjected to multi-element analysis in which the gelatinous outer layer, the embryonal receptaculum and – gleba were separately investigated. The gelatinous layer proved most rich in potassium, calcium, manganese and iron. Calcium undoubtedly stabilizes the polysaccharide gel protecting the embryonal carpophore from drying out during the growth of the egg. The superior concentrations of the other elements (compared to those in the developing carpophore) suggest a placenta-like function of the gelatinous layer. The significance of the various elements in the biology of the *Clathrus* is briefly discussed.

Key words: *Clathrus ruber*, multi-element analysis.

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Byly pozorov ny zna n  rozdily velikosti plodnic *Clathrus ruber* Mich.: Pers. pohybuj c  se od 8 cm u sb r  z Francie a  pan lska a  do v ce ne  20 cm plodnic rostouc ch v parku Ouchy (Lausanne) u  enevsk ho jezera. Chemick  v zkumy sb r  z t chto oblast  potvrdily,  e *C. ruber* koncentruje v plodnic ch mangan stejn  jako ostatn  hadovkovit  houby. Tento kov hraje pravd podobn  roli v biochemii houby, zvl st  v enzymatick m zkapaln n  gleby za sou asn  tvorby vonn ch slou enin. Vaj  ka m i ovky byla podrobena multielement rn  anal ze a samostatn  byla studov na vn j i gelatinosn  vrstva, embryon ln  receptakulum a gleba. Gelatinosn  vrstva se uk zala jako nejbohat i na drasl k, v p n k, mangan a  elezo. V p n k nepochybn  stabilizuje polysacharidov  gel, kter  chr n  mlad  plodnice p ed vysu en m b hem r stu vaj  ka. Je kr tce diskutov n v znam r zn ch prvk  v biologii *Clathrus*.