

OCCURRENCE OF MYCORRHIZA IN A MOSS *ENCALYPTA VULGARIS* HEDW

Anu Sharma\* and Anima Langer

University of Jammu, Department of Botany, Jammu 180 006, J&K, India  
 Email: [anu4botany@gmail.com](mailto:anu4botany@gmail.com)

Received-10.09.2017, Revised-26.09.2017

**Abstract:** Present communication deals with the study on the occurrence of mycorrhiza in mosses. Out of 34 moss taxa screened from diverse habitats in Jammu (J&K state), only one population of *Encalypta vulgaris* Hedw. collected from Kishtwar was found to be mycorrhizal. It seems to be the first report on the occurrence of mycorrhiza in moss rhizoids.

**Keywords:** *Encalypta*, Moss, Mycorrhiza, Rhizoids

## REFERENCES

- Brundrett, M.C.** (2002). Coevolution of roots and mycorrhizas of land plants. *New Phytologist* **154**:275-304.
- Carafa, A., Duckett, J.G. and Ligrone, R.** (2003). Subterranean gametophytic axis in the primitive liverwort *Haplomitrium* harbour a unique type of endophytic association with aseptate fungi. *New Phytologist* **160**:185-197.
- Groth-Malonck, M., Pruchner, D., Grewe, F. and Knoop, V.** (2004). Ancestors of trans-splicing mitochondrial introns support serial sister group relationships of hornworts and mosses with vascular plants. *Molecular biology and evolution* **22**:117-125.
- Harley, J.L. and Smith, S.E.** (1977). Mycorrhizal symbiosis. Academic press, London.
- Nebel, M., Kreier, H.P., Pressing, M., Weib, M.A. and Kottke, I.** (2004). Symbiotic fungal associations with liverworts are the possible ancestors of mycorrhizae. In: Agerer R, Piepenbring H, Blanz P (eds) *Frontiers in basidiomycete mycology*, HIV Verlag, Ecking, Germany, pp 339-360.
- Peklo, J.** (1903). Kotazce mycorrhizy n muscinei. *Roz. Abh. Botim. Akad Ztg.* **12**:58.
- Pocock, K. and Duckett, J.G.** (1985). Fungi in hepatics. *Bryological Times* **31**:2-3.
- Pressel, S., Bidartondo, M.I., Ligrone, R. and Duckett, J.G.** (2010). Fungal symbioses in bryophytes: New insights in the Twenty First Century. *Phytotaxa* **9**:238-253.
- Rayner, M.C.** (1927). Mycorrhiza: An account of non-pathogenic infection by fungi in vascular plants and bryophytes. *New Phytologist* Reprint no. 15. London, UK.
- Read, D.J., Duckett, J.G., Francis, R., Ligrone, R. and Russell, A.** (2000). Symbiotic fungal associations in lower land plants. *Philosophical Transactions of the Royal Society of London* **355**:815-831.
- Redecker, D., Kodner, R. and Graham, L.E.** (2000). Glomalean fungi from the Ordovician. *Science* **289**:1920-1921.
- Russell, J. and Bulman, S.** (2005). The liverwort *Marchantia foliacea* forms a specialised symbiosis with arbuscular mycorrhizal fungi in the genus *Glomus*. *New Phytologist* **165**:567-579.
- Schubler, A., Schwarzott, D. and Walker, C.** (2001). A new fungal phylum, the Glomeromycota: phylogeny and evolution. *Mycological Research* **105**:1413-1421.
- Verma, M.** (2009). Studies on the diversity of mycorrhizal associations in some liverworts of Jammu region (J&K). M.Phil. Dissertation, University of Jammu, Jammu.
- Verma, M and Langer, A.** (2011). Incidence of arbuscular mycorrhiza in some liverworts of Jammu & Kashmir, India. *Phytomorphology* **61**:1-8.
- Dowding, E.S.** (1959). Ecology of *Endogone*. *Transactions of British Mycological Society* **42**:449-457.
- Parke, J.L. and Linderman, R.G.** (1980). Association of vesicular-arbuscular mycorrhizal fungi with the moss *Funaria hygrometrica*. *Canadian Journal of Botany* **58**:1898-1904.
- Rabatin, S.C.** (1980). The occurrence of vesicular arbuscular mycorrhizal fungus *Glomus tenuis* with moss. *Mycologia* **72**:191-195.
- Zhang, Y. and Guo, L.D.** (2007). Arbuscular mycorrhizal structure and fungi associated with mosses. *Mycorrhiza* **17**:319-325.

\*Corresponding Author