

**PHENOLOGICAL STUDIES IN A DIOECIOUS HEPATIC, *PELLIA  
ENDIVAEFOLIA* (DICKS.) DUMORT**

**Kanu Anand, Anu Sharma\* and Anima Langer**

*Dept. of Botany, University of Jammu, Jammu, J&K - 180 006*

*Received-10.12.2017, Revised-26.12.2017*

**Abstract:** Events of the sexual reproductive cycle of 40 populations of *Pellia endivaeifolia* were noticed for 3 years.. The phenological events were different among different populations at different sites. There was a seasonal effect on the maturation of gametangia and sporophytes. Some populations exhibited sporophyte formations twice a year whereas others had sporophyte formation only once. Such variations could be on account of various environmental factors.

**Keywords:** Bryophyte, Egg, Phenological studies, Sexual reproduction

**REFERENCES**

- Arnell, H.W.** (1875). De skandinaviska löfmossornas kalendarium. – Uppsala Univ. Årsskrift Math. Nat. 4: 1–129.
- Ayukawa, E.S., Imura, S., Kudoh, S. and Kanda, H.** (2002). Reproductive phenology of sub alpine moss *Polytrichum ohioense*. Ren Et Card. Polar Bioscience. 11:89-96.
- Egunyomi, A.** (1979). Autoecology of *Octoblepharum albidum* Hedw. J. Hattori. Bot. Lab. 41: 205-223.
- Forman, R.T.T.** (1965). A system for studying moss phenology. The Bryologist. 68: 289-300.
- Grimme** (1902). Über die Blüthezeit deutscher Laubmoose und die Entwicklungsdauer ihrer Sporogone. – Hedwigia 42: 1–75.
- Hancock, J.A. and Brassard, G.R.** (1974). Phenology, sporophyte production, and life history of *Buxbaumia aphylla* in Newfoundland, Canada. The Bryologist 77: 501–513.
- Longton, R.E. and Miles, C.J.** (1982). Studies on the reproductive biology of mosses. Journal of Hattori Botanical Laboratory. 52: 219-240.
- Madhu (2014).** Studies on the reproductive biology of some hepatics of Jammu province, Ph.D thesis, University of Jammu, Jammu.
- Miles, C.J., Odu, E.A. and Longton, R.E.** (1989). Phenological studies on British Mosses. Journal of Bryology. 15:607-621.
- Odu, E.A.** (1981). Reproductive phenology of some tropical African Mosses. *Fissidens* sp. and *Recopilum* sp. Annals of Botany. 14:147-152.
- Sharma P** (2014). Phonological studies in some members of the family Aytoniaceae. M.Phil Dissertation. Department of Botany, University of Jammu, Jammu.
- Solli S., Söderström, L., Bakken, S., Flatberg, K.I. and Pedersen, B.** (1998). Reproductive phenology of *Dicranum majus* in central Norway. Journal of Bryology 20:311–321.
- Stark, L.R., Mishler, B.R. and McLetchie, D.N.** (1997). Sex expression and growth rates in natural populations of the desert soil crustal moss *Syntrichia caninervis*. Journal of Arid Environments. 40:401-416.
- Van der Wijk, R.** (1960). De periodiciteit in de ontwikkeling der bladmoosen. – Buxbaumia 1: 25–39.

\*Corresponding Author