

Phytoecdysteroid Levels and Distribution during Development in *Limnanthes alba* Hartw. ex Benth. (Limnanthaceae)

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Phytoecdysteroid (PE) production and accumulation in *Limnanthes alba* Hartw. ex Benth. is associated with flowering. PE content per plant remains fairly constant during the primary growth phase of the plant and only begins to increase significantly above amounts found in the seed once the development of the flower stalk has begun. Both content and concentration increase concomitantly from this point. Distributions in individual plants also associated the highest levels of PE accumulation with the reproductive tissues. This substantiates the association of PE with tissues of greatest fitness value and therefore the hypothesis that they contribute to defence. Analysis of extracts of *L. alba* tissues by reversed-phase HPLC coupled with ecdysteroid-specific RIA was used to monitor ecdysteroid profiles. RIA-positive peaks co-chromatographing with 20-hydroxyecdysone, ecdysone and ponasterone A were detected and several tissues also contain PE conjugates. Seedmeal of *L. alba* appears to be a convenient and promising source for the commercial isolation of the potent PE ponasterone A.