

Bookreview

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THE IMPACT OF DRAINING, BURNING AND FERTILIZER TREATMENT ON THE NUTRIENT STATUS OF FLOATING *TYPHA* MATS IN A FRESHWATER MARSH

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The world literature about reed contains few papers dealing with a hybrid between *Typha latifolia* and *T. angustifolia*, viz *T. glauca* BODR. The production of this hybrid in fishponds of South Bohemia was referred to repeatedly by DYKYOJOVÁ (1963-1975).

The study area under consideration was situated near Sackville, New Brunswick, at the head of the Bay of Fundy. Unfortunately, the author did not include in his Introduction the composition of floating mats and the mechanism of buoyancy. These problems were treated separately by HOGG and WEIN (1987, 1988). It is also regrettable that the differences in morphology, structure, rhizome system existing between *T. glauca* and *T. latifolia* have not been made clear in the tables. Apart from these minor shortcomings, the study presents a serious insight into a comparison of draining and burning processes combined with fertilizer treatment.

Typha glauca was used as a phytometre for measuring final shoot density, final shoot height, shoot emergence, number of leaves per shoot, basal shoot circumference, duration of assimilation period, susceptibility to drought, senescence, shoot standing crop, litter load and damage by stem-boring insect larvae.

The water table was lower to about 30 cm below soil surface and this drastic interference with floating mats was enough to reduce standing crop production of *Typha* by 64 % as compared with that in the control plot. This drastic reduction in the above-ground parts of *Typha* should bring forth interesting changes in rhizomes both morphologically and chemically (changing volume of gases). Burning influenced most of the growth parameters, but caused no rapid changes in *Typha* stands; nitrogen was the primary growth-limiting factor, phosphorus the secondary factor when supplemented with nitrogen. An addition of 200 kg/ha of phosphorus combined with 200 kg/ha nitrogen and 625 kg/ha lime increased cattail stands significantly (2.31 times). Shoot production of *Typha glauca* was limited primarily by nitrogen, in the second place by phosphorus.

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