Sexual reproduction of *H. stipulacea* (Forsskål) Ascherson in the wild and under controlled laboratory conditions

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Sexual reproduction, flowering and fruiting of the tropical intertidal seagrass *Halophila stipulacea* in laboratory culture were compared with responses of the same clones in Kunduchi mudflats, Dar es Salaam, Tanzania in 2014. Under controlled laboratory conditions, *H. stipulacea* produced flowers and fruits continuously from April to December. Flower and fruit production in the intertidal mudflats was confined to the period from late August to early November. The possible effects of salinity, temperature and photoperiod were studied in the laboratory and monitored *in situ*. Of these, temperature was observed to be the main physiochemical parameter controlling the flowering period and fruiting of *Halophila* under ex-situ conditions; in the mudflats salinity was observed to be the controlling factor. Fruit development of *H. stipulacea* in the laboratory also indicated a higher temperature response.

**Keywords:** In-situ and ex-situ; flowering and fruiting; *H. stipulacea*; Kunduchi mudflats