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SEEDLING MORPHOLOGY AND REGENERATION FOR CONSERVATION STRATEGY OF *AQUILARIA MALACCENSIS* LAMK. IN TRIPURA

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A study was conducted to characterize and identify the seeds and seedlings of Aquilaria malaccensis *Lamk. in their juvenile phase, based on their morphology and germination pattern. The morpho-taxonomic criteria considered were seedling characters, cotyledonary characters, morphology of eophylls and metaphylls. The seedlings were of PER (Phanerocotylar with Epigeal Reserve storage cotyledon) type with 80%* in vitro *germination rate. Random quadrats were laid at different forest areas of Tripura to assess the regeneration capability of the species. It showed that out of an average of 478.86 ± 2.04 individuals at different sampling sites, 366 .57 ± 1.81 were seedlings, 86 ± 1.31 were saplings, 18.2 ± 0.36 were young and 8 ± 0.22 were mature plants. This indicated that despite of huge seedling production and high regeneration capacity of* A. malaccensis, *the number of mature plants were strikingly less; main reason behind this may be the high demand for 'Gaharu'- a commercially valuable resin impregnated heartwood of* Aquilaria, *whose illegal trade has resulted in the unsustainable harvesting of the species over a long time in Tripura, leading to its immense exploitation and local extinctions from its natural stocks. Therefore, study on morphology and regeneration of this threatened species may help in its easy identification at early stages and may further help in its conservation and population restoration in wild.*