
NOTES ON THE FLORAL MORPHOLOGY AND ECOLOGY OF *MARGARITARIA DISCOIDEA* (EUPHORBIACEAE) AT MUFINDI, TANZANIA

Margaritaria discoidea (Baillon) Webster is a common and widespread African tree found in deciduous woodland, fringing forest, dry evergreen forest, rainforest, and disturbed vegetation at altitudes from near sea level to over 2,000 m (Radcliffe-Smith, 1987). At Ngwazi, Mufindi District, Iringa Region, Tanzania (08°31'S, 35°10'E, altitude 1,850 m, rainfall 850 mm/year, mean monthly temperature from 17.5°C in January to 13.5°C in June with occasional frosts) *M. discoidea* var. *nitida* (Pax) R.-Sm. occurs as a tree 5 m tall in tree clumps associated with termite mounds in grassland. This variety also grows at the edges of planted wattle breaks (*Acacia mearnsii* De Wild., Leguminosae: Mimosoideae) and flowers in mid-October at the end of the dry season but before the start of the rains, which are initially short, heavy thunderstorms. The flowers are produced before and during a flush of leaves, and before the stipules fall. Old leaves can persist until just before the new leaf flush. The trees are generally dioecious, although one individual was seen with female flowers on a predominantly male tree (Lovett 3248, DSM, K, MO). Armstrong & Irvine (1989) observed a similar occurrence in the dioecious *Myristica insipida* R. Br. (Myristicaceae) of Queensland, Australia.

The *Flora of Tropical East Africa* (Radcliffe-Smith, 1987), followed taxonomically here, and Webster (1979) described *Margaritaria* as having four sepals and four stamens. However, in a sample of 1,000 flowers from a female tree (Lovett 3251, DSM, K, MO), 657 flowers had four sepals, 326 had five sepals, and 17 had six sepals. In a sample of 1,000 flowers from a male tree (Lovett 3247, DSM, K, MO), 8 had two stamens, 37 had three stamens, 926 had four stamens, and 29 had five stamens. On another tree a flower with six stamens was also seen. In male flowers the sepals are reflexed in a square, so are not as visible and easy to count as the sepals on female flowers. Female flowers were visited by ants and honey bees (*Apis mellifera*), which are kept at Ngwazi for honey production.

Associated species in the tree clumps include the trees: **Albizia gummifera* (J. Gmelin) C. A. Smith var. *gummifera* (Leguminosae: Mimosoideae), **Apodytes dimidiata* Arn. var. *dimidiata* (Icacinaceae), *Bequaertiodendron magalismon-tanum* (Sonder) Heine & J. Hemsley (Sapotaceae), **Bersama abyssinica* Fresen. subsp. *abyssinica* var. *abyssinica* (Melianthaceae), *Buddleja salvi-
ifolia* (L.) Lam. (Loganiaceae), *Canthium lactes-
cens* Hiern (Rubiaceae), *Carissa edulis* Vahl (Apocynaceae), **Cassipourea malosana* (Baker) Alston (Rhizophoraceae), **Catha edulis* (Vahl) Forsskal ex Endl. (Celastraceae), *Croton macrostachyus* Del. (Euphorbiaceae), *Cussonia arborea* Hochst. ex A. Rich. (Araliaceae), **Cussonia spicata* Thunb. (Araliaceae), *Dais cotinifolia* L. (Thymelaeaceae), **Diospyros whyteana* (Hiern) F. White (Ebenaceae), *Dombeya rotundifolia* Harvey (Sterculiaceae), **Ekebergia capensis* Sparrman (Meliaceae), *Erythrina abyssinica* Lam. ex DC. subsp. *abyssinica* (Leguminosae: Papilionoideae), *Erythrina lysistemon* Hutch. (Leguminosae: Papilionoideae), **Euclea divinorum* Hiern (Ebenaceae), *Flacourtia indica* (Burman f.) Merr. (Flacourtiaceae), **Garcinia kingaensis* Engl. (Clusiaceae), *Heteromorpha arborescens* (Sprengel) Cham. & Schldl. (Apiaceae), *Maytenus* cf. *heterophylla* (Ecklon & Zeyher) N. Robson (Celastraceae), **Olea capensis* L. (Oleaceae), **Olinia rochetiana* Adr. Juss. (Oliniaceae), *Osyris abyssinica* Hochst. (Santalaceae), **Peddiea fischeri* Engl. (Thymelaeaceae), **Prunus africana* (Hook.f.) Kalkman (Rosaceae), **Psychotria mahonii* C. H. Wright var. *puberula* (Petit) Verdc. (Rubiaceae), **Rapanea melanophloeos* (L.) Mez (Myrsinaceae), **Rothmannia fischeri* (Schumann) Bullock (Rubiaceae), **Schrebera alata* (Hochst.) Welw. (Oleaceae), **Syzygium guineense* (Willd.) DC. subsp. *afro-montanum* F. White (Myrtaceae), *Tarenna neurophylla* (S. Moore) Bremek. (Rubiaceae), *Tecomaria capensis* (Thunb.) Spach subsp. *nyassae* (Oliver) Brummitt (Bignoniaceae), and **Trichocladus ellipticus* Ecklon & Zeyher subsp. *malosana* (Baker) Verdc. (Hamamelidaceae). Climbers



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