

Cotoneaster buxifolius Wall. ex Lindl., a vulnerable shrub species in Kodaikanal Wildlife Sanctuary, Tamil Nadu, India

The Kodaikanal Wildlife Sanctuary (KWLS) was declared open on 20 September 2013 by the Government of Tamil Nadu under section 26 A1 (b) of Wildlife (Protection) Act, 1972 (Central Act 53 of 1972) for the purpose of protecting, propagating and developing wildlife and its environment. KWLS covers 608.95 sq. km and falls in Dindigul district and part of Theni district of Tamil Nadu.

Cotoneaster buxifolius Wall. ex Lindl., is native to Southern Western Ghats and belongs to the family Rosaceae. It is a vulnerable plant according to IUCN^{1,2}. The plant grows only in high altitude grasslands (1900–2200 m) of the Western Ghats, especially at Nilgiris and Palni hills in Tamil Nadu and Idukki in Kerala^{3–5}, being a contiguous landscape. This is a good nesting plant for scaly-breasted munia and pied bush chat; many bulbuls are seen feeding the fruits (pers. obs.)

It is an intricately branched, woody, rigid and very slow growing compact

shrub which reaches up to 5 m. This is a moist evergreen shrub and looks beautiful by rounded crown. Branchlets pubescent, leaves elliptic-ovate, 1.5×0.5 cm, alternate, coriaceous, acute at apex, margin recurved, base acute, pubescent above, densely white tomentose below; petiole 2 mm. Inflorescence 2–6 flowered; bracts linear, 1.5 mm, pedicle 1 mm. Calyx 5, densely pubescent without, triangular, 2 mm. Corolla 5, white to light pinkish, orbicular, 3 mm wide. Stamens ca. 20, filaments unequal, anthers pink. Ovary inferior, 2 celled, ovules 2; styles 2, slender. Drupe globose, 8 mm wide, flesh colour to red when ripe, seeds 2. (Specimens examined: MH 132889, 5709, 35093, 35633, 36959, 37993, 43649, 38431 & 37420.)

During our exploration studies at the KWLS, we found very few individuals confined at Polur beat, Vandaravu range ($10^{\circ}11'45.1''N$, $77^{\circ}18'48.1''E$; Alt: 2014 m) and Manavanur grassland ($10^{\circ}13'31.1''N$, $77^{\circ}21'64.8''E$; Alt: 1960 m) which is also

one of the tourist points in KWLS. The area is under high anthropogenic pressure by film making and tourist activities. Manavanur lake and its adjoining montane grasslands (83 hectares) are excluded from the KWLS notwithstanding the copious population of the vulnerable *Cotoneaster buxifolius* (Figure 1). Being such a habitat specific plant, with a limited distribution, this species needs adequate protection from anthropogenic pressure as well as habitat fragmentation. Therefore, it is strongly suggested that Manavanur lake and adjoining grasslands be brought under KWLS to protect this vulnerable plant species from destruction in one of its last refuge.



Figure 1. *Cotoneaster buxifolius* Wall. ex Lindl. **a**, Habit; **b**, Inflorescence; **c**, Fruits.

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