



KANDELIA CANDEL (L.) DRUCE: A RARE AND NEW MANGROVE RECORD IN ANDHRA PRADESH

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Kandelia candel (L.) Druce is a rare and critically endangered true mangrove species of the family, Rhizophoraceae. The species is distributed in the mangrove wetlands of Bangladesh, Myanmar, Thailand, Taiwan, Eastern China, Peninsular Malaysia and Japan (Duke *et al.* 2010, Sosef and Maesen 1997, Tomlinson 1986). In India it is reported in the Gangetic delta of Sundarbans (Tomlinson 1986, Naskar and Mandal 1999), Bhitarkanika mangroves in Odisha (Upadhyay & Mishra 2010) along the East coast of India. The species is also reported in Karnataka (Divakar 1986), Maharashtra and Goa in the west coast (Joshi and Bhosale 1982, Kotmore and Bhosale 1985, Mulik and Bhosale 1989). The species has not been recorded in the coast of Andhra Pradesh though mangroves are recorded in vast estuaries and deltas of Godavari and Krishna rivers (Ravishankar *et al.* 2004).

During field exploration conducted in the mangrove wetlands of Nellore and Prakasam districts in the southern coast of Andhra Pradesh during 2011-2013 a few plants of *Kandelia candel* were recorded for the first time in the Iskapalli lagoon of Nellore district of Andhra Pradesh. Only a few plants of *K. candel* were found in the landward side of the mangrove forest of Ponnepudi at 14°41'04.98"N and 80°07'17.31"E. The species was found associated with *Sonneratia apetala* Buch.Ham and *Aegiceras corniculatum* (L.) Blanco. The herbarium voucher specimens are deposited in the herbarium collections of the Department of Botany, Jawahar Bharati Degree & P.G College, Kavali with Voucher

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Kandelia candel (L.) Druce, Rep.Bot. Exch.Club.Br.Isl.3:420. 1914 *K. rheedei* Wight & Arn. Hensl. In Hook.f., Fl.Brit.India 2: 437.1878.

The plants are small evergreen trees attaining a height of about 1m, without buttresses or pneumatophores. The stem has a thickened base, with grey to dark brown bark with lenticels. Leaves simple, opposite, decussate, elliptic-oblong, entire with round apex, 6-13 cm x 2-6 cm, leaf blade shiny (Fig. 1 A & B). Inflorescence axillary, dichotomously branched cyme, flowers conspicuous, attractive, calyx 5-lobed, persistent, petals white, bilobed, stamens many and protruding, light pink coloured, ovary inferior, unilocular, style simple, filiform. Flowers bloom during May-June.

Notes:

Vivipary is observed in this species as with other mangrove species of Rhizophoraceae. Fruits mature from August to September. The bark is reported to be suitable for tanning heavy leather or dyeing red or brown colour.

Only very few plants are present in the Iskapalli lagoon which is under threat because of widespread shrimp-farming and salt industry in the immediate neighborhood of the mangrove wetland. It is suggested that the *K. candel* saplings should be raised in the mangrove nursery by collecting the matured fruits and the nursery raised saplings should be planted and in the lagoon and protected from grazing.

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Fig. 1A: *Kandelia candel* at Poenapulli mangrove forest, Iskapalli lagoon, showing flowers.



Fig. 1B: *K. candel* showing tender viviparous hypocotyls.

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