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**Autor:** Hong-Wa, Cynthia  
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**86. *Noronhia verrucosa*** H. Perrier in Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég. 2: 283. 1949.

**Typus:** MADAGASCAR. Prov. Toamasina: N d'Andilamena, [17°01'S 48°35'E], 900 m, XI.1922, Perrier de la Bâthie 15026 (holo-: P [P00418104]!).

**Description** *Trees* to 8 m tall, trunk to 18 cm diameter; young twigs cylindrical to subquadrangular, 1.6-2.2 mm diameter, glabrous; bark medium gray to brownish, smooth to slightly rugose. *Leaves* opposite, verticillate at the tips of the branches, persistent; bud scales persistent; blades dark green above, lighter below, obovate to obtrullate, sometimes oblong, 5.5-9.5 × 2-4 cm, coriaceous, glabrous, domatia common, base acute to attenuate, margin flat to slightly undulate, apex acute to mucronate, the mucro 2-6 mm long, midrib sunken above, raised below, secondary veins conspicuous, 8-12 per side, 5-12 mm apart, looping 1.5-4 mm from the margin; petiole medium gray, 5-11 × 2-2.5 mm, entirely woody, glabrous. *Thyrses* geminate, pauciflorous, compact; peduncle 6-12 mm long, moderately pubescent; pedicel 4-7 mm long, moderately pubescent; calyx moderately pubescent outside, glabrous inside, lobes triangular, 1.5-1.8 × 0.5-1.3 mm; corolla probably white to yellow, cupuliform, 3-4 mm long, glabrous on both sides, the tube 1.5-2 mm long, lobes oblong, apex rounded; corona present, 1.5-2 mm long, undivided; stamens 1.8-2.1 mm long, anthers oblong, 1.1-1.5 mm long; pistil 1.5-2.3 mm long, stigma capitate. *Fruiting* pedicel 5-16 × 1.7-2.2 mm; young fruits whitish green, yellowish when mature, subglobose, 17.5-19 × 14.5-15.5 mm, areolate to verrucose, apex flat; dry pericarp 1.8 mm thick; endocarp woody; seed 11 × 7 mm.

**Distribution, ecology and phenology** *Noronhia verrucosa* occurs in low- to mid-elevation humid forests on basement rocks in the east, between Mandritsara, Andilamena and Betampona (Fig. 68). It produces flowers and fruits from November to April.

**Conservation status** Based on six collections representing six localities, the assessment yielded an EOO of 14,382 km<sup>2</sup>, an AOO of 24 km<sup>2</sup>, and six subpopulations representing six locations, of which three occur within protected areas (Betampona, Mananara-Nord, and Zahamena). The forests outside of these protected areas still experience much disturbance, resulting in continuing decline in habitat quality, AOO and number of mature individuals. These disturbances are mostly in the form of wood harvesting and shifting agriculture. *Noronhia verrucosa* is, therefore, assigned a preliminary status of "Vulnerable" [VU B1ab(ii,iii,v)+2ab(ii,iii,v)].

**Notes** *Noronhia verrucosa* can be recognized by its obovate to obtrullate leaf blades that are verticillate at the tips of the branches, its compact inflorescences, and its areolate to verrucose fruits. It differs from *N. macrocarpa*, as previously discussed, by the texture of its petioles, the shape of its leaves and fruits, and the surface of its fruits.

**Additional specimens  
examined**

MADAGASCAR. **Prov. Mahajanga:** Mandritsara, Marotandrano, Antsiatsiaka, Ambendraria, 16°03'34"S 49°06'45"E, 764 m, 9.XI.2004, *Lehavana* 200 (G, MO, P, TAN); Mandritsara, Antsirabe, forêt d'Angijombarika, [15°57'30"S 48°58'00"E], 1100 m, 17.VIII.1954, *Service Forestier* 10605 (P, TEF). **Prov. Toamasina:** Betampona RNI, 17°55'S 49°13'E, 15.IV.1999, *Iambana* 201 (G, MO, P); Manambato forest, N of riv. Anove between Mananara and Manompana, 16°32'S 49°43'E, 125 m, 25.II.1987, *Nicoll* 510 (MO, TAN); Zahamena RNI, Mt d'Amboditamenaka, 17°43'S 48°59'E, 700 m, 20.XII.1993, *Randrianjanaka & Be Maxime* 46 (MO, TAN).