

Panigrahi 19485 (CAL!). SIKKIM. 24 June 1876 (ster.), *King* s.n. (BM!, CAL!); 19 Jan. 1877 (ster.), *Davis & Gamble* 2387a (CAL!); 21 Jan. 1877 (ster.), *Davis & Gamble* 2387b (K!). WEST BENGAL. Sivoka, Teesta valley, 23 Feb. 1867 (pist.), *Herb. Sikkimensis Anderson* s.n. (type CAL!, K!).

VERNACULAR NAMES. Takil (Nepalese); schap, sap, fam (Lepchas), [Gamble (1902)].

USES. Fruits of *P. rupicola* are sweet but mealy, and are eaten by mammals and birds. Gamble (1902) noted that the stem pith is eaten uncooked by local Lepcha people.

CONSERVATION STATUS. The conservation status of *P. rupicola* in its wild habitat is unclear. It has a limited range, making it vulnerable to habitat loss. The ability of *P. rupicola* to thrive in inaccessible habitats such as steep, rocky slopes, ridges and cliffs may help ensure its survival in the wild.

5. *Phoenix andamanensis* S. Barrow sp. nov. *P. rupicolae* affinis, sed endospermio ruminato non homogeneo differt. Type: Andaman Islands, North Andaman, Saddle Peak, 700 m alt., 14 Dec. 1990 (pist.), *Ellis* 14189 (K!).

Phoenix sp., Kurz, Rep. Veg. Andaman Isl.: 7, 50 (1870); Brandis, Indian Trees: 646 (1906); C. E. Parkinson, A Forest Flora of the Andaman Isl.: 263 (1923).

Solitary tree palm. *Stem* 1.5 – 3.5 (5) m, without leaf sheaths c. 15 cm diam. *Leaves* to c. 2.4 m long; acanthophylls sparsely arranged in one plane, to c. 4 cm long; leaflets closely and regularly inserted in one plane, 14 – 45 × 0.4 – 2.5 cm; lamina concolorous with discontinuous white, scurfy ramenta in midrib region on the abaxial surface. *Staminate inflorescence* with prophyll to c. 30 × 5 cm, coriaceous; rachillae to c. 10 cm long. *Staminate flowers* not seen. *Pistillate inflorescence* with prophyll splitting twice between margins, to 60 × 4 cm; peduncle to 100 × 1.2 cm; rachillae to c. 23 cm long. *Pistillate flowers* spirally arranged in distal half of rachilla, c. 20 in number; calyx cupule 1.5 mm high; petals 3 – 4 × 6 mm. *Fruit* oblong, to 19 × 10 mm, colour at maturity not known. *Seed* elongate, to 14 × 7 mm; embryo lateral opposite raphe, slightly supra-equatorial; endosperm ruminant.

DISTRIBUTION. *Phoenix andamanensis* has been recorded from one locality each in both North Andaman and Little Andaman, and from Cinque and Rutland Islands (Brandis 1906; Parkinson 1923). The modern distribution of the species is unknown.

HABITAT AND ECOLOGY. Higher ground (c. 450 – 700 m) on the islands. A recent report (Balachandran, *pers. comm.*) noted that the species occurs in undisturbed 'scrub jungle' on the eastern side of Rutland Island and northern end of North Cinque Island.

SELECTED SPECIMENS EXAMINED. ANDAMAN IS. NORTH ANDAMAN. Saddle Hill, 450 m alt., 28 Sept. 1905 (stam., pist.), *Osmaston* (CAL!); Saddle Hill, 500 m alt., 1 Dec. 1976 (pist.), *Balakrishnan & Nair* 4771 (CAL!); Saddle Peak, 700 m alt., 14 Dec. 1990 (pist.), *Ellis* 14189 (K!). RUTLAND IS. precise locality unknown, 13 Feb. 1904 (pist.), *Rogers* 132 (FI-B!, K!); Headland, North Dyer Point, 19 May 1904 (pist.), *Rogers* 285 (FI-B!, K!). CINQUE ISLAND. precise locality unknown, 7 April 1911 (stam., pist.), *Rogers* s.n. (CAL!); Cinque and Rutland Is., 20 July 1911 (seed), *Rogers* s.n. (K!). LITTLE ANDAMAN. Bumila Creek, Jan. 1903, *Rogers* s.n. (K!).

VERNACULAR NAMES AND USES. Not known.

CONSERVATION STATUS. The conservation status of *P. andamanensis* is unclear. It seems that the species was never common throughout the islands, but formed large populations in two localities. Brandis (1906) and Parkinson (1923) noted it as forming 'forests' on Cinque Island and north eastern Rutland Island. The fact that *P. andamanensis* was not found in a survey of palms of the Andaman and Nicobar Islands by Mathew & Abraham (1994) suggests that the species might now be rare.

NOTES. The existence of a second species of *Phoenix* in the Andaman Islands, in addition to *P. paludosa*, was noted by Kurz (1870), Brandis (1906) and Parkinson (1923), but its identity was not ascertained. Beccari provisionally named three herbarium specimens (*Rogers* s.n., 132 and 285 at K) of the species as *P. pusilla* var. *andamanensis* (nom. in sched.), but Brandis (1906) compared it with *P. rupicola*. I have found *P. andamanensis* to be similar morphologically and anatomically to *P. rupicola*. Both species are solitary in habit and have broad leaflets (to 3 cm in width) which are closely and regularly inserted in one plane of orientation. The abaxial lamina surface of both species bears discontinuous, abaxial white ramenta in the midrib region. Despite similarities between *P. andamanensis* and *P. rupicola*, the former is immediately distinguished by its seed with ruminant endosperm. The close relationship between *P. andamanensis* and *P. rupicola* supports the acknowledged similarity between the flora of the Andaman Islands with that of northeast India. Rao (1996) cited two rare orchid species from northeastern India, *Porpax meirax* King & Pantl. and *Ascocentrum ampullaceum* Schltr., which are also found on Saddle Peak on North Andaman.

6. *Phoenix canariensis* *Chabaud*, La Provence Agricole et Horticole Illustrée 19: 293 – 297, fig. 66 – 68 (1882); Naudin, Rev. Hort. 57: 541 (1885), Rev. Hort. 60: 180 (1888), Ill. Hort. 33: 8 (1886); Becc., Malesia 3: 369, fig. 17, t. 43, 2, f. 15 – 21 (1890); L. H. Bailey, Stand. Cycl. Hort.: 2594 (1916); Blatt., Palms Brit. Ind.: 41, f. 4 (1926); Vasc. & Franco, Portugaliae Acta Biol., Sér. B, Sist. 2: 312, figs. 3, 19-2 (1948); A. Chev., Rev. Int. Bot. Appl. Agric. Trop.: 219 (1952); H. E. Moore, Principes 7 (4): 157 (1963), Principes 15 (1): 33 – 35 (1971) and Fl. Vitiensis Nova 1: 401 (1979); D. Lüpnitz & M. Kretschmar, Palmarum Hortus Francofurtensis 4: 23 – 63 (1994). Type: *P. canariensis* was described from cultivated plants without designation of a type. Lectotype: Figs. 66 – 68 of Chabaud, La Provence Agricole et Horticole Illustrée 19: 293 – 297 (1882), chosen by Moore (1971a).

P. dactylifera var. *jubae* Webb & Berthel., Hist. Nat. Iles Canaries 3 (2): 289 (1847). No type designated.

P. cycadifolia Hort. Athen. ex Regel, Gartenflora 28: 131, pl. 974 (1879); Moore, Principes 15 (1): 33 – 35 (1971), *nom. utique rej. prop.*

P. jubae (Webb & Berthel.) D. H. Christ, Bot. Jahrb. Syst. 6: 469, *nom.* (1885), 9: 170, *nom.* (1888). No type designated.

P. canariensis var. *porphyrococca* Vasc. & Franco, Portugaliae Acta Biol., Sér. B, Sist. 2: 313, fig. 19 – 23 (1948). Type: *Palma Horto Botanico Olissiponense*, Portugaliae Acta Biol., Sér. B, Sist. 2: 313, fig. 19 – 23 (1948).