

slender, 1 mm long, anthers 1.5 mm long. Pistillate flowers 8 x 4 mm, ovoid, white, subtended by 2 triangular acute bracteoles to 0.75 mm long; calyx slightly shorter than but otherwise similar to corolla, 5-7 mm high, lobed, sepals imbricate in basal 2/3, acute-rounded apically, margins membranous and minutely fringed, prominently striated when dry; petals 8 mm long, ovate, imbricate nearly to apex and there mucronate and acute-rounded, striated when dry; pistil on a 0.75 mm stalk, 5 x 3 mm, ovoid, minutely and densely pebbled, style 1 mm long, thick, stigma lobes 0.75 mm long, erect, thick, triangular. Fruits not seen.

The specific epithet is from the Latin *recurvatus*, meaning recurved, and is used here in reference to the prominently recurved inflorescence rachis. *Areca recurvata* is closest to *A. pumila* and *A. latiloba* but these latter two species differ in their fewer, broader pinnae with more nerves and inflorescences with straight rachises. *A. recurvata* is localized in hill forest in southern peninsular Thailand.

***Iguanura speciosa* Hodel sp. nov.** Figs 2 & 3.

*I. polymorphae* Becc. affinis sed foliis vaginis ligulis prominens; inflorescentiis rachillis paucioribus differt. Typus: Thailand, SW of Narathiwat, 600 m elev., D.R. Hodel, P. & R. Vatcharakorn 1628 (Holotypus BK).

Clustered or solitary understory palm to 4 m tall. Stems 1-1.5 cm diam., internodes to 5 cm, green becoming brown with age, variously covered with +/- deciduous grayish felt-like indument and scattered clusters of stellate white hairs. Leaves 8-12 per stem, simple, bifid, spreading; sheath to 14 cm long, green but densely covered with similar indument as stem, tubular, obliquely short-open apically and there tattered into 2-3 brown papery lanceolate ligules to 2.5 cm long; petiole to 10 cm long, densely covered with similar indument as stem; rachis to 36 cm long with a slender filiform tail to 5 mm long at tip, grayish to rusty-brown coarse long hairs adaxially, thick grayish felt-like indument abaxially extending onto some nerves; blade to 42 x 15 cm, oblong, bifid apically for 5 cm, flat, infrequently wavy, lateral margins



Fig. 2 *Iguanura speciosa*, habit, Hodel et al. 1628 (holotype).



Fig. 3 *Iguanura speciosa*, habit, cultivated. Nong Nooch Tropical Garden, Thailand.

coarsely toothed or scalloped, undulate, apical margins truncately praemorse, dark glossy green adaxially, paler abaxially, sparsely scattered simple or few-branched white hairs adaxially, abaxially a thin layer of olive-green indument and few scattered white hairs and patches of greenish yellow to white scales between and/or along nerves, up to 28 primary nerves on each side of rachis, these parallel, sigmoid, prominent and pale adaxially, pale to greenish abaxially, 10-12 secondary nerves between each pair of primaries, these +/- obscure adaxially, more conspicuous abaxially, sometimes long brownish scale-like hairs along nerves abaxially. Inflorescences inter- or infrafoliar in flower, infrafoliar in fruit, to 25 cm long, spreading, few-branched; peduncle to 12 cm long, with dense thick brownish indument; 2 bracts seen, these similar, to 7 cm long, green becoming brown, with similar indument as stem and sheath, lowermost bicarinate, both flattened, bifid and acute apically, uppermost exerted 3 cm above lower one and extending onto rachis; rachis 5 mm long, with similar indument as peduncle; rachillae (2-)3, to 15 cm long, 2 mm diam., 4-sided, stiff, lower 2 spreading at 180°, center one at 90° to lower ones, forming an inverted "T", densely and thickly covered with similar indument as peduncle. Flowers in triads of a center later-opening pistillate one flanked on each of 2 sides by earlier-opening staminate ones, triads spirally arranged, 4-8 mm apart, slightly sunken, subtended distally by a +/- thick lip-like bracteole to 0.75 mm high, subtended proximally by a +/- thin, knife-like bracteole to 1.5-1.75 mm high, both triad bracteoles with similar indument as peduncle. Staminate flowers seen in young bud, 1 mm high, ovoid-globose, white; calyx 0.3 mm high, brown, 3-lobed, sepals imbricate. Pistillate flowers subtended by 2-3 floral bracteoles, these imbricate, sepal-like broadly rounded, to 2.25 mm high, another bracteole subtending pistillate flower and one adjacent staminate flower, all bracteoles variously covered with reddish brown indument and nerved when dry, second staminate flower lacking a bracteole; pistillate flowers 5 x 4 mm, ovoid, white; calyx 2.75-3 mm high, shallowly lobed, sepals imbricate nearly to apex, clam-shell-like, broadly rounded, nerved when dry, margins

thinner; corolla 4.5 mm high, lobed, petals imbricate nearly to apex, boat-shaped, margins membranous, minutely fringed, free incurved mucronate acute tips, nerved when dry; staminodes 6, 5 of them situated within 2 petals and with a common base, to 2.25 mm long, 1 situated on opposite side of pistil, to 0.75 mm long, all slender, flattened; pistil 5 x 2.5 mm, +/- equalling petals, set on a 0.75 mm high stalk, ovary obovoid-globose, 3 mm high, style 2 x 0.75-1 mm, truncate apically, stigma lobes blunt, not much differentiated.

The specific epithet is from the Latin *speciosus*, meaning showy or splendid, and is used here in reference to the unusual and striking beauty of this species. *Iguanura speciosa* is exceedingly handsome, and is a spectacular ornamental in cultivation. It is closest to *I. polymorpha* but the latter differs in its inflorescences with more branches and lack of prominent ligules at the apex of the leaf sheath. Some students of palms may be inclined to include *I. speciosa* within a highly variable *I. polymorpha*. However, the two species grow sympatrically, although rather localized, in hill forest in southern peninsular Thailand, and the differences stated above between them remain constant. Also, at least in that part of Thailand, *I. speciosa* has simple leaf blades while those of *I. polymorpha* are pinnate.

**Licuala aurantiaca Hodel sp. nov.** Fig. 4.

Subgeneris *Eulicualae* Drude, sectioni *Wurmbiae* Furtado. *L. malajanae* Becc. affinis sed foliis petiolis et vaginis aurantiacis, segmentis paucioribus nervis numerioribus; inflorescentiis rachillis numerioribus; fructibus minoribus; perianthiis fructificantibus lobis longis acutis differt. *L. paludosae* Griff. affinis sed foliis petiolis et vaginis aurantiacis, inflorescentiis pilis non stellaribus differt. Typus: Thailand, S of Narathiwat, 25 m elev., D.R. Hodel, P. & R. *Vatcharakorn 1581* (Holotypus BK).

Clustering and/or gregarious understory palm to 8 m tall, forming clumps to 6 m wide. Stems 10-12 cm diam. with leaf sheaths, narrower without. Leaves ca. 10 per stem, palmately divided, spreading; sheath 15-20 cm long, long-