(see also such botanical names as *Loropetalum*). The form *lori-* would, of course, be correct in combination with a Latin word.

2. This species characteristically occurs on sandstone cliff ledges and around 'breakaways' over a large area of the northern Kimberleys. On heavier basaltic and bauxitic soils in the central part of its range it is replaced by the locally very abundant *L. eastonii*, a quite unrelated species; in the increasingly arid range country to the south it is replaced by *L. kimberleyana*, which appears to be closely related.

3. The Northern Territory palm sometimes determined as '*L. lorophylla*' is here treated as *L. inermis* R.Br. It is possible that a broad concept of the latter species might take in the north Kimberley plants, in which case Beccari's name would be reduced to synonymy, but differences in growth-habit, stature, colouring and inflorescence structure seem sufficiently consistent to warrant their separation.

4. *George 13758* and *Kenneally 4153* (from Drysdale River National Park) both exhibit a remarkable androecium: the antesepalous stamens are nearly all replaced by staminodes varying from quite petal-like to much narrower, incurved at tip and of irregular shape, but usually 2 of the larger staminodes have adnate to their inner face (as do the normal petals) an additional complete stamen of normal appearance. This bizarre flower structure was not found in other collections from areas nearer the coast. However, the sample available is very small; it remains to be seen whether these represent a localised aberrant population, or alternatively represent the normal condition for one of the sexual states in the species as a whole. However, dissection of flowers of the isotype fragment in NSW, and buds of two other pre-anthesis collections revealed a normal arrangement of stamens. In other respects this species appears to show relatively little variation, considering its apparently rather fragmented distribution.

14. L. kimberleyana *Rodd*, **sp. nov.**

Palma solitaria magnitudine mediocris, trunco ad 15 m alto, c. 15 cm diametro; coma globosa foliis cinereo-viridibus, debilibus, versus apices cernuis; petioli 150–180 cm longi, 14–17 mm lati proxime laminam. Laminae costapalmatae, c. 90 cm longae, dissectae fere ad hastulam; segmentis c. 25 mm latis, profunde bifurcatis apicibus subtiliter attenuatis. Inflorescentiae quam petiolis breviores vel aequilongae, c. 7 ramis lateralibus, illis denuo 3-plo ramosis rhachillis 0.4–6 cm longis, 0.8 mm diametris. Flores 1–2(–3?)-fasciculatae. Fructus obovoidei, parvi.

Type: Western Australia: SW base of Mt King, Durack Range, 17°20'S, 127°23'E, *A.N. Rodd* 2866, 24 Oct 1974; holo NSW; iso PERTH, CANB, K.

[*Livistona* sp. A, Wilson (1992: 1250); *Livistona* sp. 'Kimberlies' (Jones 1984)]

Trunk solitary, to c. 15 m tall, 13–15 cm diameter at 1 m above ground, generally broadening gradually at base into a narrow cone up to 25 cm diameter. Surface closely ringed with prominent sheath-scars; vertical fissures rather sparse, short, fairly straight; basal 1–1.5 m bearing closely appressed petiole-stubs to c. 5 cm long, leaves and sheaths shed cleanly higher up.
Crown globose, open, consisting of about 40 strongly arching to pendulous leaves, usually with a skirt of dead leaves hanging beneath. Ligules not observed.
Petiole c. 150–180 cm long, 14–17 mm wide; flattened-triangular in t.s. with rounded keel. Margins on upper half of petiole with closely spaced minute dark calli, toward base with retrorse or less commonly antrorse prickles, often dark-tipped, hooked and pungent, up to 5 mm long. Surfaces pale dull pinkish, strongly pruinose, obscurely to prominently striate, the lower with irregularly scattered bands of elongated shallow pits containing minute blackish dot-like or linear basal-masses obscured by appressed white scurfy scales. *Hastula* short, very irregular; rim appressed against costa, 5–9 mm

wide, roughly semicircular, triangular or ovate, strongly cuspidate, asymmetric, with irregular patches of necrotic margin.

Lamina 70–100 cm long, 0.4 mm thick, strongly costapalmate, almost circular in outline with broad basal sinus, coriaceous, flexible; moderately contorted with 1 adaxial undulation either side of the slightly deflexed costa and involute at base with few segments on either side resupinate. *Segments* 20–22 either side of costa; largest segments 23–25(–33) mm wide, free for 85–90% of their length, bifurcated for 59–76% of free length, the lobes flexuose, lying almost parallel, their apices finely attenuate but not thread-like except on lower segments. Intersegmental appendages inconspicuous, threadlike, c. 3 cm long, soon breaking off. Ribs: abaxial ribs in t.s. oblong, bluntly square-edged, to 1.0 mm thick, 1.5 mm deep; adaxial ribs much shallower. Venation: major longitudinal veins 7–8 either side of abaxial rib, prominent on both surfaces; transverse veins clearly visible on both surfaces, mostly discontinuous, most near-orthogonal with respect to longitudinal veins. Surfaces slightly discolorous, greyish-green, both surfaces quite glabrous, moderately pruinose but wax layer not easily damaged.

Inflorescences (seen only in immature fruit stage) as long as or slightly shorter than petioles, stiff and straight. Partial inflorescences c. 8, these branching to 3 further orders; rachillae 0.4–6 cm long, c. 0.8 mm thick; all axes pallid straw-coloured with a hard, waxy surface layer. Rachis bracts c. 2 cm diameter, slightly distorted, straw-coloured tinged pinkish, finely striate, glabrous except for patches of appressed, transparent, colourless contorted scales toward apex; bract apices ovate, obtuse to shortly cuspidate. *Flower-clusters* 1–3 mm apart, 1–2(–3?)-flowered; cluster axis 0.3–0.8 mm long. Cluster-bract c. 0.5 mm long, broadly triangular-cuspidate. Bracteoles 2–3, to 0.5 mm long, resembling cluster-bract.

Flowers: Anthopodium c. 0.3 mm long, c. 1.0 mm diameter, bulging downward at base, deeply recessed at junction with pedicel. Sepals fleshy-textured with rather narrow hyaline rim, c. 1.8 mm long, connate for c. ⅓ length, broadly triangular, bluntly acute. Petals thick-textured, deep reddish-brown, to 1.5–3.0 mm long, triangular, hooded at the apex with somewhat inflexed small callous point, cavities on inner faces not very distinct. Stamens c. ⅘ or more as long as petals, connate for up to half their length; filaments very broadly triangular, narrowing rather abruptly into shortly acuminate apices; anthers c. 0.45 mm long and almost as wide. Carpels (seen as squashed remains) equalling stamens, abruptly narrowing into slender oblique styles c. 0.3 mm long.

Fruit (only seen very immature) obovoid, c. 8 mm long, 6 mm diameter. (Fig. 4g, 17d)

Distribution: Western Australia — ranges of central Kimberley Region, mainly King Leopold and Durack Ranges, through both of which it appears to be widely distributed.

Ecology: occurs usually in rocky ravines and along cliff bases and on cliff ledges, mostly associated with siliceous sediments and metasediments. Associated trees include *Corymbia aspera* and *Gardenia* spp., while the ground layer is dominated by *Triodia* spp. and *Plectrachne* spp.

Conservation status: not considered at risk by Briggs and Leigh (1996), if not being listed can be interpreted thus. However, there is hardly evidence of the existence of large populations of this species, and there appear to be no national parks coinciding with its range (maybe Tunnel Creek N.P.?), so a listing of 3R may be more appropriate; further investigation is needed.

Specimens examined: Western Australia: Fitzgerald: c. 26 km NE of Inglis Gap, *Symon 10154*, 23 May 1975 (NSW); Mt Ord Gorge, King Leopold Ranges, 20 miles [32 km] SSW of Mt House Stn, *Lazarides 6453*, 29 July 1959 (CANB); Teroni Gorge, 12 miles [19 km] NNW of Elgie Cliffs Station, East Kimberleys, *Lazarides 6395*, 22 July 1959 (CANB); SW base of Mt King, Durack Range, *Rodd 2867*, 24 Oct 1974 (NSW, PERTH, CANB, K); Chamberlain River Gorge, 7 km E of El Questro Station

homestead, *Kenneally 10978*, 30 June 1989 (PERTH, NSW); Mt Leake, *Fitzgerald 1206*, July 1905 (PERTH); Mt Broome, *Fitzgerald 815*, May 1905 (PERTH)

Notes

1. This was formerly confused with *L. alfredii* (e.g. Fitzgerald 1918; Gardner 1923 and see note under that species).

2. Fitzgerald (1918) reported '*L. alfredii*' as occurring on 'Mts Herbert, Broome, Leake and Barnett; Isdell, Harris and Phillips Ranges; junction of Hann and Barnett Rivers (W.V.F.)' — some of which fill in the crescent formed by the King Leopold and Durack Ranges.

3. Gardner (1923) gives for '*L. alfredii*' the distribution 'Synnot Creek near Charnley River, King Leopold Ranges near Prince Regent River, and sandstone ranges near the lower King Edward River and Napier Broom Bay. Among sandstone rocks in elevated situations, King Leopold Ranges and Sir Frederick Hills.' Some of these localities would extend its distribution a long way north, but it is more than likely that they represent occurrences of *L. lorophylla*, which Gardner apparently did not distinguish from his '*L. alfredii*'. Neither Fitzgerald nor Gardner appear to have collected specimens to support their observations, which is perhaps understandable considering the conditions under which they travelled.

4. Its closest relationship appears to be with *L. lorophylla* Becc., from which it differs principally in its overall larger dimensions, its pruinose foliage and its much thicker, more rigid inflorescence rachillae. It is possible that toward the northern part of its range it may show some intergradation with that species, in that one or two specimens seen have not been unequivocally referable to one or the other. It is possible even that further study may show it to represent an arid race of *L. lorophylla*, but for the meantime it seems preferable to treat it as a distinct species.

5. The type locality in the Durack Range is also the type locality for *L. mariae* subsp. *occidentalis*, and indeed these two very different taxa grow together here in a rocky ravine, but showing different ecological preferences, with a grove of *L. mariae* confined to permanent soaks in the bed of the ravine, and scattered *L. kimberleyana* among rocky outcrops on the lower slopes — the populations nonetheless intermingling at the boundaries. At the time of my visit I observed (and photographed) some individuals that did not seem clearly referable to one or another of these taxa and suspected that they might be hybrids, but time did not permit collection of a specimen.

15. L. victoriae *Rodd*, **sp. nov.**

Palma solitaria magnitudine mediocris, trunco ad 12 (–20) m alto, c. 20 cm diametro. Coma foliis pruinosis rigide radiantis; petioli c. 1 m longi, 25 mm lati proxime laminam. Lamina valde costapalmata, c. 1 m longa. Inflorescentia 4–8 ramis lateralibus, illis denuo 4-plo ramosis, rhachillis 0.5–3.0 cm longis, gracillimis. Fructus subglobosi-ellipsoidei, in siccitate ad 11 mm longi, 10 mm diametro, sutura ventrali manifesta. Semina intrusione testa laterali, parvo, embryone fere basali.

Type: Northern Territory: c. 3 km W (by road) of Victoria River crossing, Katherine–Kununurra road, 15°35'S, 131°06'E, alt. c. 80 m, *A.N. Rodd 2934*, 3 Nov 1974; holo NSW; iso DNA, K, PERTH.

[*Livistona* sp. 'Victoria River' (Jones 1984); '*Livistona* sp. B' (Wilson 1992: 1250)]

Trunk solitary, to 12 (–20?) m high, c. 20 cm diameter at 1 m above ground, hardly reducing upward, broadening close to ground into a somewhat bulbous swelling to c. 30 cm diameter. Surface rather obscurely ringed with sheath scars, becoming smooth on lower trunk with age; vertical fissures not very conspicuous; petiole-stubs c. 4 cm