Acacia hopperiana sp. nov. (Leguminosae: Mimosoideae)

Ab *Acacia isoneura* Maslin et A.R. Chapman phyllodiis 10-nervibus, glande 10–60 mm supra pulvinum posita, legumine grisco-brunneo, et seminibus obloideo-cllipsoidalibus vel discoideo, differt.

Typus: 44 km north of Murchison River on North West Coastal Highway, Western Australia, 3 August 1974, *B.R. Maslin* 3650 (*holo:* PERTH 00658340; *iso:* CANB, K, MEL – all distributed as *A. isoneura* subsp. *nimia*).

Dense, domed or obconic *shrub* 1–3 m tall and 1–4 m across, occasionally a *tree* to 4 m tall, single- or multi-stemmed at ground level; crown rounded. *Bark* longitudinally fissured, fibrous and dark grey at base of main stems on oldest plants otherwise smooth and dark grey or reddish grey. *Branchlets* erect, straight, red-brown (yellow-orange at extremities), terete but marked with fine, yellow or reddish ribs, silvery sericeous between ribs (hairs short, straight, closely appressed) but normally soon glabrous. *Stipules* inconspicuous, 0.5–1 mm long, scarious, red-brown. *Phyllodes* terete, 6–14 cm long, 0.7–1 mm wide, sub-rigid, straight to shallowly incurved, ascending to erect, light green, appressed-puberulous when young, glabrous or with hairs confined to furrows between nerves when mature; *longitudinal nerves* 10, of uniform width (0.2–0.3 mm wide) and prominence, flat-topped or shallowly convex, each separated by a very narrow, shallow, dark longitudinal furrow; *apex* acute, innocuous to coarsely pungent, dark brown; *pulvinus* 1–2 mm long, often indistinct being encrusted with resin, yellow to light orange, densely appressed-hairy on upper surface. *Gland* inconspicuous, sometimes absent, on upper surface of phyllode 10–60 mm above pulvinus. *Inflorescence* simple, 1 or 2 per axil; *peduncles* 1–2 mm long, often obscured by stamens at anthesis so that spike appears sessile, appressed-hairy; *basal peduncular bracts* caducous, *c.* 1 mm long. *Spikes* 10–20(25) mm long, 4–7 mm wide, sub-densely flowered, golden; *bracteoles* persistent, spathulate, 0.6–0.8 mm long. *Flowers* 4-merous; *calyx* gamosepalous, 1/4–1/2 length of corolla, dark brown, sub-glabrous to moderately puberulous, dissected for 1/4–1/2 its length into triangular lobes; *corolla* 1.4–2 mm long, glabrous; petals obscurely 1-nerved. *Pods* 5–9 cm long, 2–3 mm wide, pendulous, flat, moderately to deeply constricted between seeds and scarcely raised over them, thinly coriaceous–crustaceous to firmly chartaceous, straight to shallowly curved, greyish brown, glabrous or minutely antrorsely strigulose; margins narrow, thickened, yellow to light brown. *Seeds* longitudinal in pod, obloid/ellipsoid or discoid, 2–3 mm long, 1.5–2 mm wide, compressed (*c.* 1 mm thick), glossy, light brown or grey-brown mottled pale yellow, or greyish mottled dark brown; pleurogram fine, U- or V-shaped with a wide opening towards hilar end; areole small, 0.3–0.5 mm long, *c.* 0.2 mm wide; funicle filiform expanded into an obvious, ± conical, folded, white aril which commonly readily detaches from seed.

Selected specimens examined. WESTERN AUSTRALIA: 22.8 km S of Billabong Roadhouse, North West Coastal Highway, *M.E. Ballingall* 1894 (PERTH); Winchester area, 19 Aug. 1972, *C. Chapman s.n.* (PERTH 00656836); 70 km N of Northampton, *R. Hnatiuk* 760473 (PERTH); Coorow, late Nov. 1979, *B. Jack s.n.* (PERTH 00657255); 45 km N of Murchison River, North West Coastal Highway, *B.R. Maslin* 3345 (CANB, G, K, NY, PERTH); Buntine Rock, NNW of Wubin, *B.R. Maslin* 7605 (CANB, K, MEL, PERTH) and *S.D. Hopper* 8337 (BRI, NSW).

Distribution. South-west Western Australia where it occurs between Carnamah and Watheroo, at Buntine Rock (about 20 km north of Wubin), and north of Geraldton from Nerren Nerren Station south to about 10 km north of the Murchison River.

Habitat. North of the Murchison River *A. hopperiana* grows in yellow or reddish sand on plains or in the swales between sanddunes; around Coorow it occurs in yellow sand, and at Buntine Rock it grows in gritty loam on the soil apron that fringes the rock.

Phenology. Flowering specimens have been collected from late July to September. Pods with mature seeds have been collected from mid-November to mid-December.

Conservation status. Not under threat.

Etymology. This attractive new species is named for Stephen D. Hopper, Chief Executive Officer of Kings Park and Botanic Garden and, more importantly, my respected colleague whose scientific research over the past more than 20 years has contributed so much to the understanding of the Western Australia flora.

Affinities. Acacia hopperiana is a member of *Acacia* section *Juliflorae.* It is closely related to A. *isoneura* Maslin & A.R. Chapman (Maslin & Chapman 1999) and care is needed not to confuse the two. Characters shared by these two species include their sericeous, finely ribbed branchlets; long, terete, multi-nerved phyllodes (nerves ± broad and of uniform width and prominence); axillary spikes on very short peduncles; 4-merous flowers with a gamosepalous calyx; and long, narrow, thin-textured pods with ± obscurely mottled seeds. *Acacia isoneura* is most reliably distinguished from *A. hopperiana* by its 8-nerved phyllodes with the (obscure) gland situated 0–3 mm above the pulvinus, reddish brown pods and ellipsoid to obloid-ellipsoid seeds (never discoid). The most reliable way of counting nerve numbers accurately is to section the phyllode and observe the cut ends at x10 mag. or higher. In both species the glands are very obscure but their position is generally indicated by a slight swelling of the phyllode lamina about the gland. Both *A. hopperiana* and *A. isoneura* subsp. *nimia* occur near Buntine, but they appear not to be sympatric; in addition to the characters noted above subsp. *nimia* is distinguished from *A. hopperiana* by its essentially epulvinate phyllodes.

Variation. On plants occurring north of Geraldton the seeds are clearly discoid with the aril readily detaching from the seed. On plants south of Geraldton, however, the seeds are obloid-ellipsoid and the aril does not so readily detach.

Note. Most duplicates of this species were dispatched by PERTH some years ago, identified as *A. isoneura* subsp. *nimia* Maslin & A.R. Chapman.

Acknowledgement

Alex George is thanked for providing the Latin diagnosis and for editorial assistance in preparing this description.

Reference

Maslin, B.R. & Chapman, A.R. (1999). *Acacia* miscellany 19. The taxonomy of some Western Australian species of *Acacia* section *Juliflorae* with 4-merous flowers (Leguminosae: Mimosoideae). *Nuytsia* 12: 469–486.

B.R. Maslin
Department of Conservation and Land Management, Locked Bag 104, Bentley Delivery Centre, Western Australia 6983