7. *Opuntia microdasys* (Lehm.) Pfeiff.

In: *Enumeratio Diagnostica Cactearum hucusque Cognitarum*: 154 (1837).

=*Opuntia rufida* Engelm.

Common names: angel's wings, bunny-ear prickly pear, teddy bear cactus, yellow teddy-bear cactus (English).

Shrub, forming thickets 0.4–0.6 m or more tall; cladodes oblong, obovate or suborbicular, 6–15 × 6–12 cm, green, velvety; areoles prominent, 8–13(–16) per diagonal row across midstem section; glochidia many, typically yellow, reddish brown (in the form previously known as *O. rufida*) or white. Spines absent, rarely 1, very short **Flowers** numerous on each cladode, c. 4 × 4 cm, yellow, ageing apricot to orange (in the form previously known as *O. rufida*); outer tepals often tinged red. **Pericarpel** densely glochidiate. **Fruit** nearly globose, c. 3 cm in diameter, fleshy, red or purple-red. **Distribution**: N, SA. (Fig. 201)

References: Britton & Rose (1963), Anderson (2001), Parfitt & Gibson (2003), Hunt *et al*. (2006).

Opuntia microdasys is widespread throughout the Chihuahuan Desert of central and northern Mexico, at 600–1300 m (*O. rufida* extending into Texas), or 1 700–2 100 m above sea level (Pinkava, 2003a). It cannot be confused with any other species, with its low habit (Fig. 202), velvety epidermis, and numerous spineless areoles packed with short glochidia (Fig. 203). *Opuntia rufida* is here included in this species as a northern form (but see Pinkava, 2003b). It differs from the typical form by its reddish glochidia (Fig. 204). A population that appears to fit this description has been recorded in the Northern Cape Province, on the Victoria West townlands, invading natural Karoo vegetation. The tepal colour was a dirty salmon-pink, and the possibility of hybridization needs to be considered.

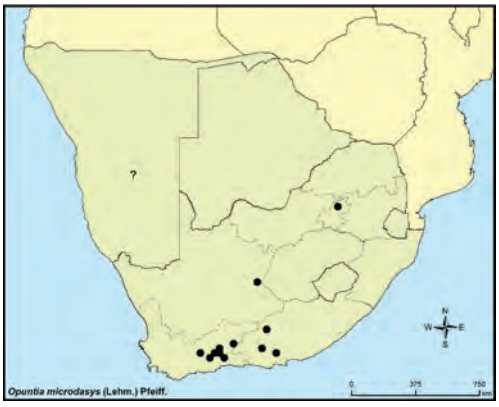

Fig. 201. Distribution map of *Opuntia microdasys* (Lehm.) Pfeiff.

Fig. 202. *Opuntia microdasys* (Lehm.) Pfeiff. (Picture by PPRI)

Fig. 203. Cladodes of *Opuntia microdasys* (Lehm.) Pfeiff. have numerous areoles with glochidia. (Picture by PPRI)

Fig. 204. Form of *Opuntia microdasys* (Lehm.) Pfeiff. with reddish glochidia.
(Picture by Pieter J.D. Winter)

In South Africa *Opuntia microdasys* is a common horticultural specimen, especially during the juvenile phase when it displays its characteristic bunny-ear-like pads. It is commonly cultivated as a rockery ornamental in the drier parts of South Africa (Smith *et al*., 2011) because of its pads and flowers (Fig. 205). It forms large clumps, often escaping from gardens or growing near rubbish dumps where plant parts have been disposed of. It has thus naturalised in very localised areas, usually close to habitation, since it does not spread by seeds. To date, it has been recorded (SAPIA data) from northern Gauteng, Northern Cape (near Hopetown), Western Cape (throughout the Great Karoo) and Eastern Cape (Sundays River basin and near Steytlerville). It is naturalised in Namibia. Collectors and the nursery trade are probably the main causes for its dispersal. It is a very popular garden ornamental almost throughout the world and is listed as an invader in Australia.

This species is currently not a declared weed in South Africa, but has been proposed for classification as category 1b under NEMBA and CARA (Anonymous, 2009).

Fig. 205. Flowers of *Opuntia microdasys* (Lehm.) Pfeiff. (Picture by Debbie Sharp).

8. *Opuntia monacantha* Haw.

In: *Supplementum Plantarum Succulentarum*: 81 (1819).

=*Opuntia vulgaris* sensu auct. non Mill. (misapplied name)

Common names: cochineal prickly pear, drooping prickly pear (English); Engelse turksvy, luisiesturksvy, suurturksvy (Afrikaans).

Erect shrub up to 2(–3) m high, sometimes with a short trunk; cladodes oblong to obovate, 10–30 × 7.5–10(–12.5) cm, tapered towards the base, fairly thin, bright green when young. Spines 1 or 2, unequal, the longer 2–4 cm long, brown towards tip and base, off-white between, more numerous on trunk. **Flowers** from Oct. to Apr., 5–7.5 × 7.5–10 cm, yellow or orange-yellow; outer tepals tinged red. **Fruit** pyriform, 5–7.5 × 4–5 cm, green with red-purple shades, edible. **Distribution**: S, SA. (Fig. 206)

References: Obermeyer (1976), Anderson (2001), Henderson (2001), Taylor & Zappi (2004), Hunt *et al*. (2006).

Opuntia monacantha is best identified by its large, attractive and edible pear-shaped fruit (Fig. 207), drooping appearance (Fig. 208), thin, shiny cladodes (Fig. 209) with often only one or two rigid thorns per areole (Fig. 210) and large attractive flowers (Fig. 211).

It is originally from eastern coastal South America (southern Brazil to northern Argentina) (Leuenberger, 2002). In South Africa, this cactus prefers sandy soils in coastal bush and moist savanna. It is found mainly on the coastal plain from Maputaland to the Eastern Cape, but also occurs sporadically in thicket communities in the Western Cape, and occasionally elsewhere (SAPIA data). It is naturalised in Swaziland.

It was also a serious invader in Australia, India, Sri Lanka, Madagascar and Mauritius before the introduction of a cochineal species, *Dactylopius ceylonicus* (Zimmermann *et al*., 2009). There are claims that the destruction of this species could have contributed to the severe famine in southern Madagascar in the 1920's, as a result of the collapse of vast populations of the cactus that were used for fodder and human consumption (Middleton, 1999).

This was a common and aggressive invader in South Africa during the late 19th century forming dense thickets along the coast between Mossel Bay and Durban. Though a declared weed, it was brought under full and sustainable biocontrol by *Dactylopius ceylonicus* that was released in 1913, so that it is now considered a minor weed. There are occasionally flare-ups of populations, often along the Eastern Cape coast. No other control measures, besides biological control, are necessary. The cactus moth, *Cactoblastis cactorum,* is also effective in reducing regrowth by killing young plants.

Fig. 206. Distribution map of *Opuntia monacantha* Haw.

Fig. 207. Fruits of *Opuntia monacantha* Haw. are pear-shaped and edible. (Picture by PPRI)

Fig. 208. *Opuntia monacantha* Haw. plants have a characteristic drooping appearance. (Picture by Helmuth G. Zimmermann)

Fig. 209. Shiny young cladodes of *Opuntia monacantha* Haw. Note the tiny, subulate, red leaves. (Picture by Neil R. Crouch)

Fig. 210. *Opuntia monacantha* Haw. with one or two rigid thorns per areole and uniformly red pericarpel scales and outer tepals. (Picture by Neil R.Crouch)

Fig. 211. Flower of *Opuntia monacantha* Haw. (Picture by Geoff R. Nichols)

9. *Opuntia robusta* Pfeiff.

In: *Enumeratio Diagnostica Cactearum hucusque Cognitarum*: 165–166 (1837).

Common names: blue-leaf cactus, robusta, robusta blue-leaf opuntia (English); bloublad, robusta, robusta turksvy, turksvy (Afrikaans).

Shrub or tree, usually 2–5 m high; cladodes more or less orbicular, massive, c. 40 × 40 × 4–5 cm, waxy pale blue; areoles sparse, impressed and often sunken. Spines absent (in some cultivars) or 2–12, unequal, filiform, up to 5 cm long, white, pale brown or yellow below. **Flowers** 5 × 5–7 cm, yellow. **Fruit** globose to ellipsoid, 7–8 cm long, long-tuberculate while still green, areoles with a few long glochidia (c. 1 cm) in addition to numerous short glochidia, deep red to purple; pulp purple, sour. **Seeds** numerous, fertile. **Distribution**: B, SA. (Fig. 212)

References: Britton & Rose (1963), Hunt *et al*. (2006).

Opuntia robusta has characteristic large, orbicular, bluish green cladodes with areoles widely scattered (Fig. 213), and yellow flowers (Fig. 214).

This cactus is widely distributed to the north of the Sierra Volcánica Transversal range in central Mexico (Hunt, 2006). In South Africa it is naturalised in a few localities, mainly in the semi-arid interior (SAPIA data) (Fig. 215). It is cultivated by farmers for use as an emergency feed for livestock during drought and not for its edible fruit, which is sour (Fig. 216). It is naturalised in Botswana. It is also sporadically naturalised in Australia where it is known as the wagon wheel cactus (Telford, 1984).

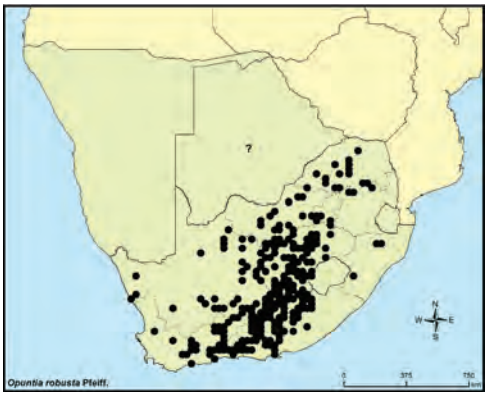

Fig. 212. Distribution map of *Opuntia robusta* Pfeiff. Most of these data reflect cultivated plants or casual aliens. Actual invasions are estimated at less than 3% of records.

Fig. 213. Cladodes of *Opuntia robusta* Pfeiff. are large, orbicular and a typical bluish green colour. (Picture by Gideon F. Smith)

Fig. 214. Flowers of *Opuntia robusta* Pfeiff. (Picture by Neil R. Crouch)

Fig. 215. *Opuntia robusta* Pfeiff. has a tree-like habit. (Picture by Gideon F. Smith)

Fig. 216. Fruits of *Opuntia robusta* Pfeiff. (Picture by Lesley Henderson)

Luther Burbank was a famous cactus breeder in California who used *O. robusta* from Mexico as the main parent for his spineless 'robusta' fodder cultivars. Several of these cultivars were introduced to South Africa during the 1920's and one of these cultivars, 'Robusta' was widely and successfully cultivated as an emergency drought fodder plant in the Karoo. Over time the plant has reverted to the original spiny form (Fig. 217) at a few localities, comparing well with the wild *O. robusta* in Mexico. The cultivated robusta blue-leaf opuntia has become a common sight in the drier parts of South Africa and it is often grown as an ornamental. Although the spineless *O. ficus-indica* is more widely cultivated as a fodder plant in other parts of the world, the 'robusta-blue-leaf', until recently, was the preferred species in South Africa because it is more drought-tolerant and is fairly resistant to the cactus cochineal, *Dactylopius opuntiae* (De Kock & Aucamp, 1970).

Although generally treated as a tall shrub or tree, as has been done here, some Mexican authors have applied this name to a low shrub, that is here treated as *Opuntia spinulifera* (Hunt, 2006). Both taxa have impressed areoles.

Opuntia robusta is not a declared weed in South Africa, but the spiny form has been proposed for classification as a category 2 invasive alien plant under NEMBA and CARA (Anonymous, 2009).

Fig. 217. *Opuntia robusta* Pfeiff. reverting to the spiny form.
(Picture by Helmuth G. Zimmermann)

10. *Opuntia salmiana* J.Parm. ex Pfeiff.

In: *Enumeratio Diagnostica Cactearum hucusque Cognitarum*: 172 (1837).

Low shrub 0.3–0.5 m or more, much branched; branch segments terete, up to 25 × 1 cm, not tuberculate, often tinged red. Spines absent or 3–5, bristle-like, up to 1.5 cm long, barbed. **Leaves** very small, 1–2 mm long, tinged purple, caducous. **Flowers** produced rather freely, 2–3.5 cm across, white or pale yellow. **Stamens** sensitive. **Fruit** oblong-ellipsoid, c. 1 cm wide, bright red, barren in cultivated plants, but proliferous (upper pericarpel areoles generate small, very spiny stem segments while still attached to parent plant). **Distribution**: SA. (Fig. 218)

References: Britton & Rose (1963), Anderson (2001), Hunt *et al*. (2006).

The disproportionately large, white flowers (Fig. 219) compared to the narrow, terete stems are diagnostic for this taxon, as are the vegetative propagules that are formed by the upper pericarpel areoles at the time of fruit ripening (Fig. 220). This species has long been enigmatic in *Opuntia*, and molecular data have been used to suggest that it should be recognised as a separate genus (Griffith & Porter, 2009).

Opuntia salmiana is associated with the Gran Chaco region in South America, from Bolivia, Paraguay and Argentina (Jujuy and Salta, south to Catamarca and Santiago del Estero, and San Luis to Entre Rios) (Hunt, 2006).

This is an emerging invader, currently known from one locality only, north of Brits, in the North-West Province in South Africa (Fig. 221). It can form dense thickets and the small bristle-spiny cladodes can adhere to any animal brushing past, spreading the cactus vegetatively over considerable distances. Attempts should be made to eradicate this newcomer that has not yet been declared, nor proposed, for invader classification in South Africa.

Fig. 218. Distribution map of *Opuntia salmiana* J.Parm. ex Pfeiff.

Fig. 219. Flowers of *Opuntia salmiana* J.Parm. ex Pfeiff.
(Picture by Helmuth G. Zimmermann)

Fig. 220. Propagules developing from the top of the fruit in *Opuntia salmiana* J.Parm. ex Pfeiff. (Picture by Helmuth G. Zimmermann)

Opuntia salmiana is a preferred host for the cactus moth, *Cactoblastis cactorum*. Feeding damage is conspicuous and is recognized by the white papery shells left behind after the larvae have eaten out the contents of the cladodes. Unfortunately this damage is not sufficient to prevent spread and densification. This species is attacked in its native distribution range by a unique cochineal insect (*Dactylopius salmianus)* that appears to be restricted to feeding on this species only, in some way supporting the uniqueness of this cactus and the proposal to regard it as a new genus.

Fig. 221. *Opuntia salmiana* J.Parm. ex Pfeiff. is an emerging invader.
(Picture by Helmuth G. Zimmermann)

11. *Opuntia spinulifera* Salm-Dyck

In: *Hortus Dyckensis ou Catalogue des Plantes*: 364 (1834).

=*Opuntia heliabravoana* Scheinvar

Common names: saucepan cactus (English); grootrondeblaarturksvy (Afrikaans).

Spiny shrub, much-branched, 1.7–2 × 3–6 m, not arborescent; cladodes flattened, orbicular, 20–40 cm in diameter, or up to 60 cm wide, mostly less than 2.5 cm thick, apex often truncate to emarginate, glaucous-green, glabrous; areoles sunken, dense (8–20 mm apart), sub-spirally arranged in 18–21 series. Spines 1–2(–6?), up to c. 2 cm long, thin, rigid, reflexed, whitish. **Flowers** from Nov. to Dec., yellow. **Fruits** widely barrel-shaped or globose, c. 3 cm in diameter, yellow**. Seeds** up to 90 per fruit, 2.5–3 mm in diameter. **Distribution**: SA. (Fig. 222)

References: Britton & Rose (1963), Obermeyer (1976), Henderson (2001), Scheinvar (2009).

This species is similar to *Opuntia robusta* in its wide cladodes (Fig. 223), though these are thinner in *O. spinulifera* and the areoles are much closer set, with more reflexed spines (usually absent in *O. robusta*). *O. robusta* furthermore has red fruits instead of yellow (Fig. 224). In the density of areoles this species resembles *O. leucotricha*, but has wider cladodes, and lacks the velvety stem epidermis, as well as the flexuose, filiform spines. The spines are thin, rigid, reflexed and whitish (Fig. 225) and the flowers are yellow (Fig. 226).

The classification of Britton & Rose (1963) is followed here in the application of this name. Hunt *et al*. (2006) consider *O. spinulifera* a name of uncertain status, as no type specimen is known (Britton & Rose, 1963). Because it was described from unsourced sterile material, and not known (presumably in the wild) by Britton & Rose, it is considered indeterminate (Hunt, 2006). Wild plants of what appears to be the same entity were described with the name *O. heliabravoana* Scheinvar, here treated as a synonym.

Fig. 222. Distribution map of *Opuntia spinulifera* Salm-Dyck.

Fig. 223. *Opuntia spinulifera* Salm-Dyck has wide cladodes.
(Picture by Pieter J.D. Winter)

Fig. 224. Fruits of *Opuntia spinulifera* Salm-Dyck. (Picture by Lesley Henderson)

Fig. 225. Reflexed spines of *Opuntia spinulifera* Salm-Dyck projecting from sunken areoles. (Picture by Pieter J.D. Winter)

Fig. 226. Flowers of *Opuntia spinulifera* Salm-Dyck. (Picture by Geoff R. Nichols)

The natural and perhaps partly naturalised range of *Opuntia spinulifera* is the Valley of Mexico (states of Hidalgo, Mexico, Puebla and Tlaxcala) (Scheinvar *et al*., 2009, as *O. heliabravoana*).

The species is a declared weed, currently with the invasive status of potential transformer, since it invades savanna and grassland (Fig. 227). In South Africa it was previously well known from the Katrivier basin, and it has recently been recorded from the Bergville and Pietermaritzburg districts in Kwazulu-Natal, and as persisting individuals planted near Ga-Molepo, Limpopo.

It is not known if any of the introduced cactus-feeding insects feed on *Opuntia spinulifera.* The herbicides registered for other *Opuntia* invaders should be effective also on this species.

Fig. 227. *Opuntia spinulifera* Salm-Dyck invades grassland.
(Picture by Lesley Henderson)

12. *Opuntia stricta* (Haw.) Haw. var. *dillenii* (Ker Gawl.) L.D.Benson

In: *Cactus and Succulent Journal (US)* 41: 126 (1969).

=*Opuntia dillenii* (Ker Gawl.) Haw.

Spreading shrub, 0.5–1.3 (–2) m high, thicket-forming; cladodes broadly to narrowly obovate or oblong, 10–20 × 7.5–1.4 cm, blue-green, usually tuberculate (areoles prominent). Spines 4–7(–11) on most areoles, not restricted to marginal areoles, stout, commonly curved, flattened, usually 1.5–4 cm long, yellow, often with brown bands. **Flowers** 5–6 × 5–6 cm, yellow. **Fruit** narrowly obovoid and stipitate, 4–6 × 2.5–3 cm, fleshy, red turning purple; pulp purple inside, sour. **Distribution**: B, N, S, SA. (Fig. 228).

References: Obermeyer (1976), Anderson (2001), Parfitt and Gibson (2003).

Opuntia stricta var. *dillenii* differs from var. *stricta* mainly by the number of spines per areole (4–7 and rarely up to 11) and their general dispersion among all areoles, whereas in var. *stricta* the few spines are more or less restricted to the cladode margin.

The variety occurs naturally from the Mexican east coast to the West Indies. Some authors, e.g.Telford (1984), claim that it occurs as far north as South Carolina in North America, while others consider it to be restricted to the Caribbean. It has been recorded in South Africa only from near Pietermaritzburg and the Nagle Dam (Kwazulu-Natal) (Obermeyer, 1976) (Fig. 229). It has become a serious invader in Ghana, Ethiopia and possibly Madagascar, as well as in Australia, where intermediates with var. *stricta* are reported (Telford, 1984). It is currently a declared invader by being listed as a synonym of *O. stricta*.

Fig. 228. Distribution map of *Opuntia stricta* (Haw.) Haw. var. *dillenii* (Ker Gawl.) L.D.Benson

Fig. 229. *Opuntia stricta* (Haw.) Haw. var. *dillenii* (Ker Gawl.) L.D.Benson.
(Picture by Helmuth G. Zimmermann)

13. *Opuntia stricta* (Haw.) Haw.

In: *Synopsis plantarum succulentarum*: 191 (1812) **var. *stricta.***

Common names: Australian pest pear, sour prickly pear (English); suurturksvy (Afrikaans).

Spreading shrub, 0.5–1.3 (–2) m high, thicket-forming; cladodes broadly to narrowly obovate or oblong, 10–20 × 7.5–14 cm, blue-green, usually tuberculate (areoles prominent). Spines absent, or 1, then restricted to marginal areoles, usually stout, straight, flattened, 1.5–4 cm long, yellow. **Flowers** 5–6 × 5–6 cm, yellow. Pericarpel with 0–4(–8) areoles, smooth. **Fruit** narrowly obovoid and stipitate, 4–6 × 2.5–3 cm, fleshy, red turning purple; pulp purple inside, sour. **Distribution**: B, N, S, SA. (Fig. 230).

References: Britton & Rose (1963), Obermeyer (1976), Zimmerman (1983), Telford (1984), Parfitt & Gibson (2003), Anderson (2001), Henderson (2001), Hunt *et al.* (2006).

The relatively smooth pericarpel with 0–4(–8) areoles (Fig. 231) distinguishes this species from other naturalised species in South Africa. In addition, the yellow spines (unless absent) and obovate (more than 1.5 times longer than wide) cladodes (Fig. 232) characterise this species. The flowers are yellow (Fig. 233). In cases where cladodes are more orbicular, less tuberculate (evidenced by a smoother rim), fruits not narrowed toward the base, and glochidia conspicuous and longer than 4 mm, hybridization with *Opuntia engelmannii* (then known as *O.* ×*alta* Griffiths) can be suspected.

The natural range of *Opuntia stricta* var. *stricta* is considered (Howard & Touw, 1982; Anderson, 2001; Hunt, 2006) to be the southeastern USA (Florida, Mississipi, Alabama, southeast Virginia, Louisiana, Texas), eastern Mexico and Cuba in the West Indies.

It is naturalised in most provinces of South Africa, especially in the northeastern parts. *Opuntia stricta* var. *stricta* invades savanna (Fig. 234), as the seedlings seem to need the protection of shrubs or trees to establish (Mann, 1970). In southern Africa is has also been recorded as naturalised in Botswana, Namibia and Swaziland.

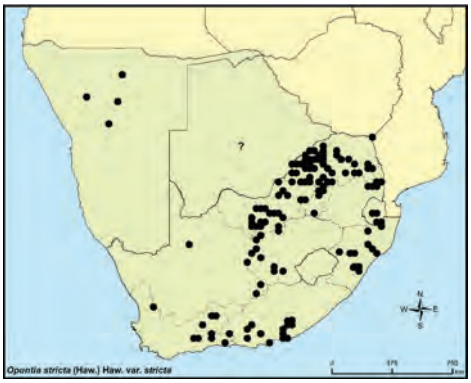

Fig. 230. Distribution map of *Opuntia stricta* (Haw.) Haw. var. *stricta.*

The species was severely invasive in Australia and was considered to be Australia's worst ever weed covering almost 24 million ha of Queensland and New South Wales under a mat that was up to 2 metres deep. *O. stricta* var. *stricta* has also become a serious invader in Angola, Madagascar, Ethiopia, Yemen and Saudi Arabia.

Except for its fruit, this invader is not utilised by stock or wild animals. Whereas numerous ungulates and elephants devour invasive (even spiny) *Opuntia ficus-indica* in the Addo Elephant National Park in South Africa, no feeding occurs on *O. stricta* var. *stricta* plants in the Kruger National Park (KNP) despite heavy feeding pressure during droughts. Baboons and elephants, however, eat the ripe fruit and contribute to the rapid spread and densification of this species in the KNP (Foxcroft & Rejmanek, 2007).

In South Africa *Opuntia stricta* var. *stricta* is a declared weed (category 1 invader) and has the status of a transformer (Henderson, 2001). A recommended herbicide for its chemical control is available in South Africa (Anonymous, 2004). It has been proposed to be classified as category 1b under NEMBA and CARA (Anonymous, 2009). An effective biological control programme using the cactus moth (*Cactoblastis cactorum*) and the host-specific biotype of the cochineal insect (*Dactylopius opuntiae*) has been responsible for its successful control in the KNP (Zimmerman *et al*., 2009). Chemical control in the KNP is now limited to outlying isolated plants and small populations while the dense infestations are left or biological control (Foxcroft *et al*., 2004).

Fig. 231. Stipitate fruits of *Opuntia stricta* (Haw.) Haw. var. *stricta.*
(Picture by Pieter J.D. Winter)

Fig. 232. Cladodes of *Opuntia stricta* (Haw.) Haw. var. *stricta* showing prominent tubercles. (Picture by Pieter J.D. Winter)

Fig. 233. Flower of *Opuntia stricta* (Haw.) Haw. var. *stricta.*
(Picture by Pieter J.D. Winter)

Fig. 234. *Opuntia stricta* (Haw.) Haw. var. *stricta.* invades savanna.
(Picture by Pieter J.D. Winter)

Peniocereus (A.Berger) Britton & Rose

Erect, prostrate or scandent shrubs; root thickened, tuberous, or turnip-shaped; branches with few articulations, slender, ± cylindric, epidermis hairless or papillose-downy, often tinged purple or with white spots; ribs 9–15(–17). Spines conspicuous, white to brown. **Flowers** nocturnal; pericarpel areoles with bristles or spines; hypanthium long and slender, with soft spines. **Perianth** funnelform. **Fruit** narrowly ovoid to subglobose, tapered at apex, fleshy, red. **Fruit** bristles/spines more or less caducous. **Seed** broadly ovoid, 1.4–4.6 × 1.2–3.3 mm, shiny or matt black-brown (virtually black), sides flat to low-conical, periphery undifferentiated or crested with larger cells, surface smooth.

References: Telford (1984), Anderson (2001), Hunt *et al*. (2006).

The genus comprises 20 species from USA (southern Arizona) extending southwards through Central America as far as Costa Rica (Hunt, 2006).

Some species in this genus appear similar to some species of *Echinopsis* or *Cleistocactus* in their columnar or arching stems that are only rarely branched above 0.5 m from base, in their usually 9–15 ribs with troughs between ridges obscured by radial spines extending over them and interlacing, and in the pericarpel with many bristles or hairs. It differs from *Echinopsis* by having thinner stems (less than 6 cm in diameter) that can grow taller, and by flowers appearing

over a considerable length of the stem, not only the top 10 cm. Both *Echinopsis schickendantzii* and *Cleistocactus samaipatanus* have a soft, dark, hair covering of the pericarpel and hypanthium, while *Peniocereus* has stiffer, white bristles on those parts. *Cleistocactus* has much smaller, red flowers, and stems no taller than 1.5 m.

Peniocereus serpentinus (Lag. & Rodr.) N.P.Taylor

In: Hunt & Taylor in *Bradleya* 5: 93 (1987).

=*Nyctocereus serpentinus* (Lag. & Rodr.) Britton & Rose

Common names: Mexican night-blooming cereus, serpent cactus, snake cactus (English); slangkaktus (Afrikaans).

Shrub, stems erect or arching, up to 2(–3) m tall, branching from base; root more or less tuberous; branches (2.5–)3–5 cm in diameter, green; ribs 10–12(–17), slightly rounded, tubercles absent to ± prominent; areoles c. 1 cm apart. Spines soft, 10–14, unequal, white to brown, often tinged red or purplish when young; radial spines 10–13, needle- or bristle-like, (4–)10–15 mm long; central spine absent or single, stouter, up to 3 cm long. **Flowers** nocturnal, (12–)15–20(–25) × 8–10 (–15) cm, white, tinged red outside; tepals narrow, acute; outer tepals reflexed; pericarpel and hypanthium with white bristles. **Stamens** exserted; anthers yellow. **Style** exserted. **Fruit** ovoid to globose, up to 4 cm long, red; scales acute; areoles many, with whitish hairs. **Distribution**: SA. (Fig. 235).

References: Telford (1984), Anderson (2001), Hunt *et al*. (2006).

This species, with stems of similar diameter and rib and spine density (Fig. 236) to that of *Cleistocactus samaipatanus* in the tribe Trichocereeae, has been recorded in South Africa in the Limpopo Province (in the Lekgalameetse Nature Reserve and near Rust de Winter), and in KwaZulu-Natal (Pietermaritzburg, Tugela valley and near Greytown).

Fig. 235. Distribution map of *Peniocereus serpentinus* (Lag. & Rodr.) N.P.Taylor.

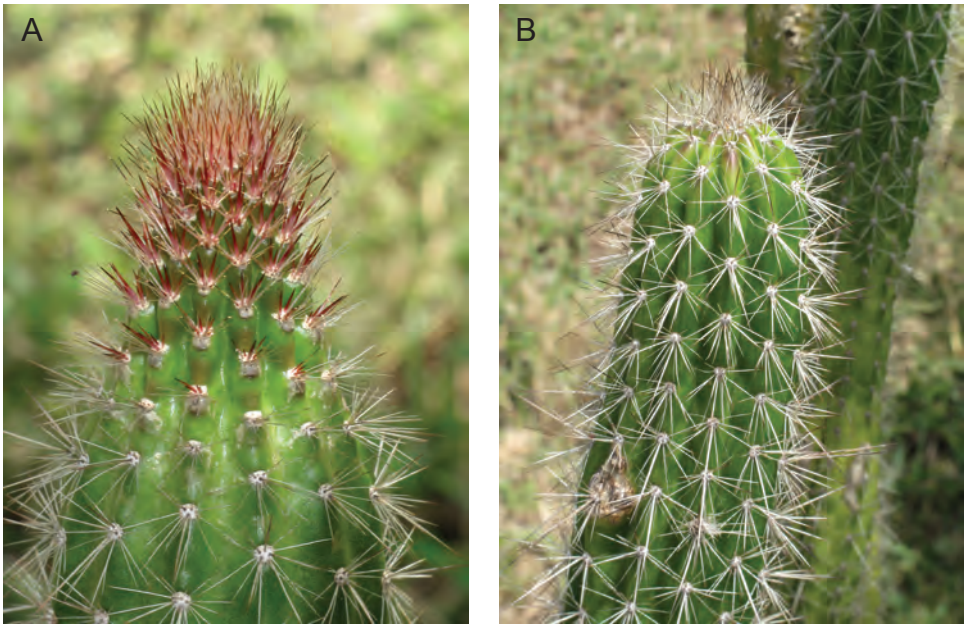

Fig. 236. *Peniocereus serpentinus* (Lag. & Rodr.) N.P.Taylor – A. Young stem; B. Older stem. (Pictures by Neil R. Crouch)

In the only plant seen dug up, the root does not appear to be tuberous. The columnar, erect stems (Fig. 237) are taller (2–3 m), than those of *Cleistocactus* (0.5–1.5 m). Spines on new growth of *C. samaipatanus* are pale yellow, not white or tinged purplish. Fruit is more than 1 cm in diameter, with pale bristles, compared to the smaller fruit with soft, dark hairs in *C. samaipatanus*. Tuberous roots, or specimens with mature fruit, are required to confirm the identification. A range of plants should be dug out to assess whether plants recruited from seed have a more tuberous root than those established through formation of adventitious roots from stem sections in contact with the soil. *Cleistocactus* species are commonly cultivated for their attractive, bright red, zygomorphic flowers, and may still emerge as naturalised populations in future.

Peniocereus serpentinus is a widely cultivated Mexican (Sinaloa to Querétaro, also Oaxaca) cactus of the tribe Echinocereeae, popular due to its relatively large, white, nocturnal flowers. It has been recorded as naturalised in Australia (Telford, 1984).

Fig. 237. *Peniocereus serpentinus* (Lag. & Rodr.) N.P.Taylor has erect columnar stems. (Picture by Neil R. Crouch)

Pereskia Mill.

Shrubs or woody climbers; roots sometimes tuberous; branches not conspicuously succulent, cylindric, unsegmented, not ribbed or tubercled; glochidia absent. **Leaves** present, broad, flat, thin, not or only slightly succulent, deciduous or sub-persistent. Spines usually numerous. **Flowers** in paniculate inflorescences, or clustered, or solitary, pedicellate or sessile, diurnal. Pericarpel receptacle with few to many scales; areoles with wool, often hairs, and rarely spines; hypanthium absent. **Perianth** rotate, spreading or rarely erect, white. **Ovary** semi-inferior or inferior. **Fruit** baccate, sometimes with persistent scales; pericarpel juicy or tough, indehiscent, fruit pulp present or absent. **Seed** more or less circular or obovate to reniform; 1.7–7.5 mm long, black-brown (virtually black), shiny, relief flat.

References: Obermeyer (1976), Anderson (2001), Taylor & Zappi (2004), Hunt *et al*. (2006).

These plants are very unlike most other cacti in having more conventional, true leaves (Fig. 238), and an inflorescence that is not as congested and reduced (Fig. 239, 240).

There are 17 species in this genus, native to Central and South America. *Pereskia* is currently considered to be a paraphyletic group, with the Andean (including the widespread *P. aculeata* Mill.) and southern South American *Pereskia* clades more closely related to the core cacti than they are to the northern group of mainly Caribbean species (Edwards *et al*., 2005).

Fig. 238. Leaves and spines of *Pereskia aculeata* Mill. (Picture by Gideon F. Smith)

Fig. 239. Young inflorescence of *Pereskia aculeata* Mill. (Picture by Neil R. Crouch)

Fig. 240. Inflorescence of *Pereskia aculeata* Mill. (Picture by Geoff R. Nichols)

Pereskia aculeata Mill.

In: *Gardeners Dictionary*, Edition 8 [unpag] (1768).

Common names: Barbados gooseberry, leaf cactus, lemon vine, pereskia (English); pereskia, Barbadosstekelbessie, bougainvilleakaktus (Afrikaans).

Climbing shrubs 3–15 m tall; basal branches cane-like, 2–3 cm thick; distal branches c. 4 mm thick, green, terete. **Leaves** lanceolate to elliptic or ovate, up to 7–11 × 4 cm, shortly petiolate, usually subtended by a pair of small, persistent claw-like spines, 4–8 mm long. Normal spines 1–3, charcoal-grey, developing at areoles on older growth only, numerous on trunk, straight. **Flowers** numerous, in panicles, 2.5–5 cm in diameter, scented. Pericarpel areole with hairs and often small spines; scales few, elongated, foliaceous; outer tepals 4–7, greenish; inner tepals 7–12, white or nearly so, apices obtuse**. Stamens** of mature flower oblique. **Ovary** more or less inferior, surface with spines, a hollow at the style base, dark green. **Fruit** c. 2 cm in diameter, skin smooth, sometimes spiny, fleshy, pale yellow to orange (ripe). **Seed** black-brown (virtually black). **Distribution**: S, SA. (Fig. 241).

References: Obermeyer (1976), Leuenberger (1986), Anderson (2001), Henderson (2001), Taylor & Zappi (2004), Hunt *et al*. (2006).

This species is readily distinguished from other invasive cacti by its generic features (see above), and by the paired recurved spines, specially adapted for climbing, on the more vigorous shoots. It is the most widespread of the *Pereskia* species, from Mexico, the West Indies and Florida (USA), south to northern and eastern South America as far as Argentina (Anderson, 2001; Taylor & Zappi, 2004; Hunt, 2006). The fruit (Fig. 242) has been used to make jam. Flowers are in panicles (Fig. 243) and the trunk has numerous, straight spines (Fig. 244).

Fig. 241. Distribution map of *Pereskia aculeata* Mill.

Fig. 242. Fruits of *Pereskia aculeata* Mill. (Picture by Geoff R. Nichols)

Pereskia aculeata is a garden escape, and has become a serious pest in KwaZulu-Natal coastal forests, as well as the Port St. Johns and Port Alfred areas (Eastern Cape) in South Africa. Isolated infestations also occur in the Limpopo and Mpumalanga Provinces. In South Africa it is a declared category 1 invader, and a registered herbicide is available for its control (Anonymous, 2004). One biological control agent, a chrysomelid beetle (*Phenrica guerini*) has been released against this plant, but has proved to be ineffective (Klein, 1999). It is also listed as naturalised in Swaziland. It is considered an invader in Australia (Telford, 1984). A golden-leaved horticultural cultivar is widely grown and has the potential to escape, although it has not been documented yet (Fig. 245).

Fig. 243. Panicles of flowers of *Pereskia aculeata* Mill. (Picture by Geoff R. Nichols)

Fig. 244. Trunk of *Pereskia aculeata* Mill. with spines. Note the pair of short, stout, recurved spines at the base of the upper left node. (picture by Geoff R. Nicholls)

Fig. 245. Golden leaved cultivar of *Pereskia aculeata* Mill. (Picture by Geoff R. Nichols)

Tephrocactus Lem.

Shrubs; branching moniliform; branch segments globose, cylindric or obovoid, easily detached; roots fibrous. **Leaves** tiny, cylindric, caducous; areoles ± immersed, with hairs and glochidia, spines 0–4. **Flowers** apical. **Stamens** usually numerous, sensitive. **Fruit** dry, dehiscent; pulp none. **Seed** highly specialised, extremely variable in shape, laterally compressed, 2.5–9.5 mm long, yellowish white to brown; aril (funicular envelope) glabrous, girdle strongly protruding, spongy.

References: Anderson (2001), Hunt *et al*. (2006).

The characteristic growth pattern with globose, easily detached segments, usually spineless but with conspicuous glochidia, the dry, dehiscent fruits and the unique seed structure are diagnostic for this genus of seven species endemic to western Argentina in South America.

Tephrocactus articulatus (Pfeiff.) Backeb.

In: *Cactus (Paris)* 8(38): 249 (1953).

=*Opuntia glomerata* sensu auct. non Haw.

Common names: paper-spine cholla, pine cone cactus (English); papierdoringkaktus (Afrikaans).

Dwarf shrub, erect, up to 20–30 cm long; branch segments globose to oblong, usually 2.5–5 × 2.5–5 cm, easily detached; glochidia dark brown or maroon, conspicuous. Spines lacking or 1–4, up to or more than 50 × 7 mm, flat, papery or raffia-like, pale brown or white. **Flowers** 3–4 cm in diameter, white or pale pink. **Fruit** 1–1.5 cm long, terminal, persistent, often sterile. **Seed** winged and corky. **Distribution**: N, SA. (Fig. 246).

References: Anderson (2001), Hunt *et al*. (2006).

Tephrocactus articulatus is widely distributed across the dry north-central and northwestern parts of Argentina, from Catamarca and Santiago del Estero, south to Mendoza and San Luis (Hunt, 2006).

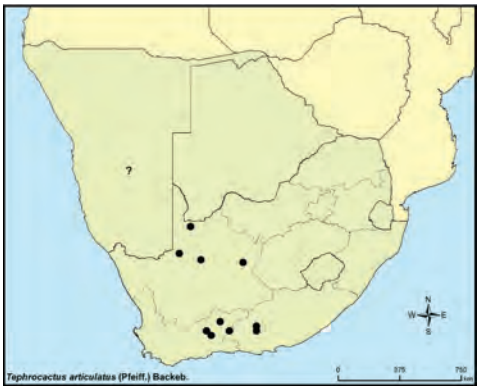

Fig. 246. Distribution map of *Tephrocactus articulatus* (Pfeiff.) Backeb.

It is thought to have been introduced into South Africa as a horticultural specimen especially for succulent gardens (Fig. 247). It has been recorded sporadically from Askham and Upington in the Northern Cape, the Great Karoo of the Western Cape, and around Jansenville in the Eastern Cape (Fig. 248). It is also widely distributed as an ornamental and garden escape in Namibia. Dispersal is by segments that are easily detached (Fig. 249). Elsewhere it produces winged and corky seeds (L. Henderson, *pers. comm*.) that are easily dispersed by wind and water.

This species is currently not a declared weed in South Africa, however it has been recommended for classification as a category 1a invasive species under NEMBA and CARA (Anonymous, 2009).

Tephrocactus articulatus spreads by dislocated cladodes that root and grow, forming dense thickets. Some cladodes, although fairly heavy, may be washed away longer distances. It is not spread by animals. The main cause for long-distance dispersal is humans who find it an attractive rockery plant.

Fig. 247. *Tephrocactus articulatus* (Pfeiff.) Backeb. is common in succulent gardens. (Picture by Barbara K. Mashope)

Fig. 248. *Tephrocactus articulatus* (Pfeiff.) Backeb. invading karoo. (Picture by Pieter J.D. Winter)

Fig. 249. Stem segments of *Tephrocactus articulatus* (Pfeiff.) Backeb. are easily detached. (Picture by Pieter J.D. Winter)

COMMELINACEAE Mirb.

(Spiderwort family; *Wandelende jood-familie*)

by

N.R. Crouch

Perennials or annuals, often somewhat succulent; the perennials of diverse habits, sometimes rhizomatous or stoloniferous, very rarely forming a small bulb; roots adventitious, fibrous, thin or tuberous; stems with prominent nodes and internodes. **Leaves** basal and/or cauline, alternate, distichous or spirally arranged, with a basal, usually closed sheath enveloping stem, often ciliate at mouth; blade simple, entire, often petiolate. **Inflorescence** terminal, terminal and axillary or rarely all axillary, composed of cymes which may be few, or many and aggregated into thyrses, sometimes subtended by or enclosed in spathaceous bracts. **Flowers** bisexual or bisexual and male, actinomorphic or zygomorphic, occasionally cleistogamous. **Sepals** 3, free or united at base, usually ± equal and sepaloid, occasionally petaloid, often boat-shaped and keeled, persistent. **Petals** (2–)3, free or basally connate to form a tube, equal or unequal, caducous. **Stamens** in 2 whorls, 3 + 3, all fertile or 1–4 modified into staminodes and bearing variously shaped antherodes, hypogynous or united with corolla; filaments glabrous or bearded; anthers basifixed, dorsifixed or versatile, opening with longitudinal slits or rarely by basal or apical pores. **Ovary** superior, 2–3-locular with 1–many axile ovules in each locule; ovules uniseriate or biseriate; style simple, usually slender; stigma apical, simple or rarely 3-lobed, small or capitate, rarely enlarged**. Fruit** a 2–3-valved capsule, loculicidal, rarely indehiscent, or a berry. **Seeds** 1–many per cell, hilum dot-like or elongate, embryotega circular, dorsal to lateral, rarely terminal, endosperm copious.

References: Obermeyer & Faden (1985), Faden (1998), Fish (2000), Hong & DeFilipps (2010).

The family comprises c. 650 species in c. 40 genera. It is predominantly distributed in tropical regions, with far fewer species known from subtropical and temperate zones (Hong & DeFilipps, 2010).

Four species from two genera of the Commelinaceae are naturalised in southern Africa.

Key to naturalised genera [based on Hunt (1984) and Faden (2010)]:

1. Leaves very succulent; involucral bracts inconspicuous, spreading or sheathlike, never spathaceous; capsule 2-valved . . . . . ***Callisia***

1'. Leaves semi-succulent; involucral bracts conspicuous, spathaceous, paired; capsule 3-valved . . . . . ***Tradescantia***

Callisia Loefl.

Herbs, perennial or rarely annual; roots thin, rarely tuberous, rhizomes absent. **Leaves** spirally arranged or distichous (2-ranked); blade sessile. **Inflorescence**

terminal and/or axillary, composed of sessile cymes in pairs (often aggregated into larger spike-like or panicle-like units), umbel-like, contracted, subtended by bracts; bracts inconspicuous, less than 1 cm long; spathaceous bracts absent; bracteoles persistent. **Flowers** bisexual (bisexual or male in *C. repens*), actinomorphic; pedicels very short or well developed; sepals 2–3, free, subequal; petals 2–3, free, equal, not clawed, lanceolate, white or pink to rose (rarely blue). **Stamens** 6 or 3, all fertile, 1 or more becoming staminodes, subequal; filaments glabrous or bearded; anther locules rounded, longitudinally dehiscent, connectives broad and square, triangular or oblong, rarely narrow. **Ovary** oblong, subtrigonous, 2–3-locular; ovules (1–)2 per locule, 1-seriate. **Fruit** a capsule, 2–3-valved, 2–3-locular. **Seeds** 1–2 per locule, minute, with dot-like hilum.

References: Hunt (2001), Faden (2010), Hong & DeFilipps (2010).

This genus is closely related to *Tradescantia* but generally lacks the paired bracts subtending the inflorescence, and differs in seed characters (Hunt, 2001).

Callisia repens (Jacq.) L.

In: *Species plantarum* ed. 2: 62 (1762).

=*Hapalanthus repens* Jacq.
=*Spironema robbinsii* C.Wright
=*Tradescantia callisia* Sw.

Common names: creeping inch plant (English).

Herbs, perennial, mat-forming; stems prostrate, much branched, rooting at nodes, flowering stems ascending. **Leaves** distichous, gradually becoming smaller distally along flowering shoots; blade ovate to lanceolate or lanceolate-oblong, 1–4 × 0.6–1.2 cm (distal leaf blades much narrower than sheaths when sheaths opened, flattened), base clasping, subcordate or obtuse, apex acuminate, glabrous except for scabrid margins and apex. **Inflorescence** ascending, sessile in axils of distal leaves of flowering stems, composed of pairs of sessile cymes (sometimes reduced to single cymes). **Flowers** bisexual or male, odorless, subsessile. **Sepals** green, linear-oblong, 3–4 mm long, hirsute along midvein, margin scarious. **Petals** inconspicuous, lanceolate, 3–6 mm long, white. **Stamens** 3; filaments glabrous and long-exserted; connectives broadly deltoid. **Ovary** oblong, subtrigonous, 2-locular, apex pilose; ovules 2 per locule; style filiform; stigma penicillate. **Fruit** an oblong capsule, 2-valved, c. 1.5 mm long; seeds 2 per valve, 1 mm long, rugose, brown. **Seeds** 1–2 per locule, minute, with dot-like hilum. **Distribution**: SA. (Fig. 250).

References: Hunt (2001); Faden (2010); Hong & DePhilipps (2010).

Callisia comprises c. 20 species from the USA through to tropical America, with a major centre of diversity in Mexico (Faden, 2010). The compactness of plants of *C. repens* (Fig. 251) and the relatively small size of its thickly fleshy and broadly pointed leaves (Fig. 252) should prevent its confusion with any other member of the Commelinaceae in southern Africa, whether native or naturalised.

Callisia repens is grown as a horticultural subject, particularly in hanging baskets where under water-stressed conditions the leaves turn an attractive purple colour. It spreads vegetatively from the smallest of cuttings, making it extremely difficult to eradicate once introduced (Fig. 253). *Callisia repens* displays a wide range of ecological tolerances for it will grow in the shade of forest floors (Fig. 254), or in full sun. The clone commonly cultivated appears to rarely flower in southern Africa (Fig. 255), and in Europe is reportedly non-flowering (Hunt, 1984).

Fig. 250. Distribution map of *Callisia repens* (Jacq.) L.

Fig. 251. *Callisia repens* (Jacq.) L. has a compact habit. (Picture by Neil R. Crouch)

Fig. 252. Leaves of *Callisia repens* (Jacq.) L. are broadly pointed.
(Picture by Geoff R. Nichols)

Fig. 253. *Callisia repens* (Jacq.) L. invasion. (Picture by Geoff R. Nichols)

Fig. 254. Shade form of *Callisia repens* (Jacq.) L. (Picture by Neil R. Crouch)

Fig. 255. Inflorescence of *Callisia repens* (Jacq.) L. (Picture by Geoff R. Nichols)

Tradescantia L.

Perennial herbs; stems simple to diffusely branched, erect or trailing, sometimes rooting at nodes; roots thin or tuberous. **Leaves** distichous or spirally arranged, oblong-ovate to linear, sessile or rarely petiolate. **Inflorescence** terminal and/or axillary, of paired, sessile cymes, each pair subtended by foliaceous or spathaceous bracts; bracteoles persistent. **Flowers** few to many, bisexual, actinomorphic, pedicels very short or well developed. **Sepals** free, subequal, rarely basally connate (in *T. zebrina*), green or coloured. **Petals** free, equal, rarely clawed, rarely basally connate, obovate to orbicular, white to pink, blue or violet. **Stamens** 6, equal, all fertile; filaments bearded or smooth. **Ovary** 3-locular, with 2(–1) superposed ovules in each cell. **Fruit** a loculicidally dehiscent 3-valved capsule. **Seeds** variable; hilum oblong to linear; embryotega dorsal.

References: Obermeyer & Faden (1985), Fish (2000), Faden (2010).

Common names: spider-lily, spiderwort, wandering-jew (English); wandelende jood (Afrikaans).

Tradescantia is a genus of c. 70 species occurring in North, Central and South America (Obermeyer & Faden, 1985; Faden, 2010). The various species tend to hybridise freely when growing together which has resulted in some taxonomic confusion. Much early taxonomic literature and even current horticultural works reflect the exclusion of *Zebrina* Schnizl. *a*nd *Setcreasea* K.Schum. & Sydow from *Tradescantia*, a situation that has since changed (Hunt, 1975, 1986). Several tradescantias are grown as pot plants, and as ground covers given their rapid growth and mat-forming tendencies. The three species naturalised in South Africa have escaped from cultivation, with *T. fluminensis* the most widespread and abundant. In moist regions of the subtropical East Coast such as Kloof and Hillcrest this species may be found occupying many hectares of forest undergrowth, where it displaces the native flora.

Key to the species of *Tradescantia* naturalised in southern Africa [based on Hunt (1984) and Faden (2010)]:

1. Flowers subsessile; petals clawed, claws connate at least basally; stamens epipetalous **2**

1'. Flowers distinctly pedicellate; petals neither clawed nor connate; stamens free . . . . . **1. *Tradescantia fluminensis***

2. Leaves 2-ranked, bases oblique; blade usually variegated; sepals connate basally into a slender tube . . . . . **3. *Tradescantia zebrina***

2*'*. Leaves spirally arranged, bases symmetric, blade not variegated but usually purplish violet; sepals distinct . . . . . **2. *Tradescantia pallida***

1. *Tradescantia fluminensis* Vell.

In: *Fl. Flumin*: 140 (1829).

=*Tradescantia albiflora* Kunth

Common names: small leaf spiderwort, white-flowered wandering jew (English).

Glabrescent herb with decumbent, slender, leafy stems, rooting at nodes. **Leaves** distichous, blade lanceolate-eliptic to ovate-acuminate, 2.5–5 × 1–2 cm, abruptly narrowed at base into a short, broad, open, ciliate sheath, apex acute, margins ciliolate, green above, green or purplish beneath. **Inflorescence** composed of few-flowered cymes, terminal and/or terminating abbreviated side branches, each pair of cymes subtended by 2 foliaceous subequal bracts. **Flowers** distinctly pedicellate, pedicels 1–1.5 cm, glandular-pilose. **Sepals** ovate-acuminate, with a ciliate keel, 5–7 mm long, green. **Petals** free, ovate, not clawed, 8–9 mm long, white. **Stamens** 6; filaments 8 mm long, white, bearing long beaded hairs in lower half; anthers with an obtriangular connective, locules spreading outwards towards apex. **Ovary** 3-locular, oblong-globose, with 2 ovules per locule; style terete or somewhat swollen in middle; stigma capitate. **Fruit** a capsule, 2 mm long, chartaceous. **Seed** reticular, hilum linear. **Distribution**: L, S, SA. (Fig. 256).

References: Obermeyer & Faden (1985), Hunt (2001), Faden (2010).

This species belongs to section *Austrotradescantia*, a wholly South American section centred in southeastern Brazil (Hunt 1980). It is native to South America, from Argentina through to central Brazil (Obermeyer and Faden 1985).

The uniformly green adaxial leaf blades (Fig. 257) of this species separate it from other *Tradescantia* species occurring in southern Africa, all of which are exotic. It should be noted though that several clones are cultivated, including some variegated ones (Hunt 1984) that are not yet known to have escaped in South Africa.

South Africa is not the only country in which this favoured pot plant has escaped; in New Zealand it is reportedly a common weed (Obermeyer and Faden 1985), and it has also been reported from Australia and the USA (Faden 2010). Although this species prefers the shade of moist forest floors (Fig. 258) it may also be found in more xeric environments such as the banks of seasonally dry streams in Valley Bushveld. In such situations the plants lose most of their leaves over the dry period, perennating as a succulent stem at soil level. Although attractive the feathery while flowers are quite small (Fig. 259).

Fig. 256. Distribution map of *Tradescantia fluminensis* Vell.

Fig. 257. Leaf blades of *Tradescantia fluminensis* Vell. are uniformly green adaxially. (Picture by Neil R. Crouch)

Fig. 258. *Tradescantia fluminensis* Vell. invades moist forest floor. (Picture by Neil R. Crouch)

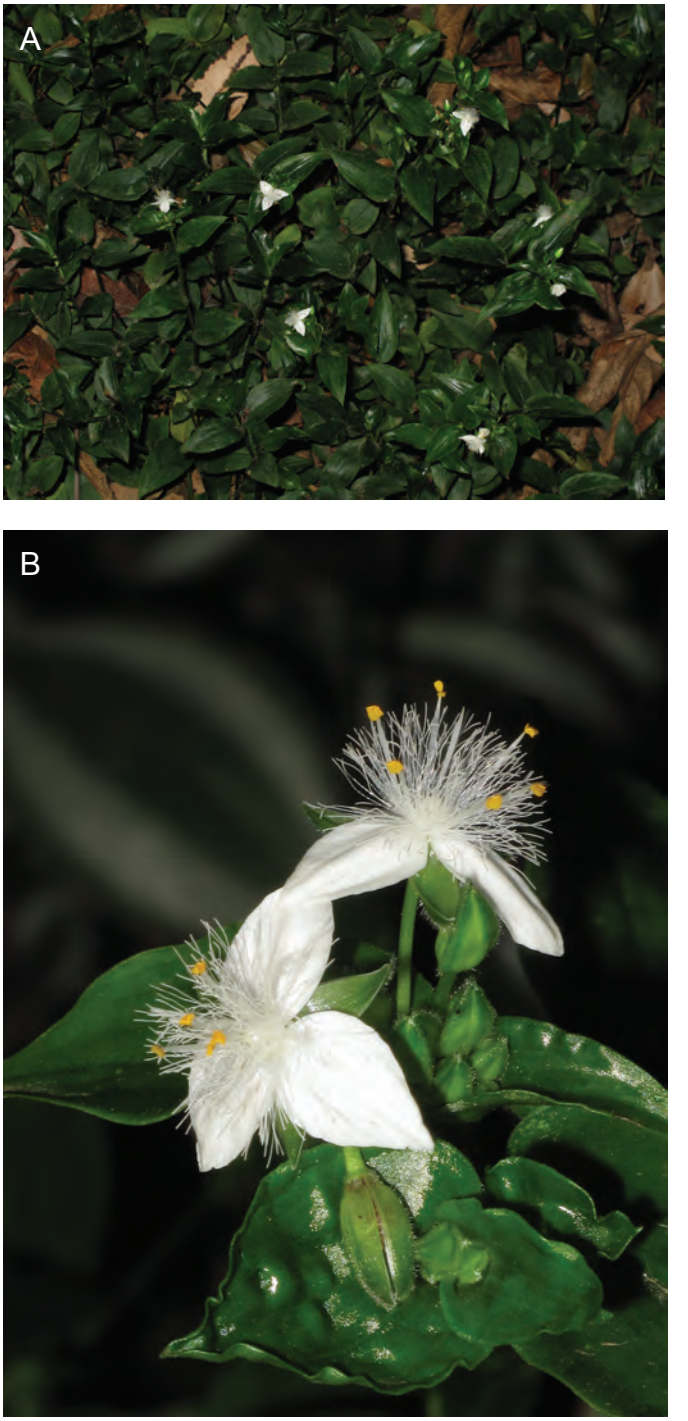

Fig. 259. *Tradescantia fluminensis* Vell. – A. Feathery white flowers; B. Flower close-up. (Pictures by Neil R. Crouch)

2. *Tradescantia pallida* (Rose) D.R.Hunt

In: *Kew Bull*. 30: 452 (1975).

=*Setcreasea pallida* Rose
=*Setcreasea purpurea* Boom

Common names: purple heart, purple queen (English).

Perennial herb with succulent stems up to 40 cm long, ascending or decumbent, suffused with purplish violet. **Leaves** spirally arranged; blade trough-shaped, lanceolate-oblong to oblong-elliptic, (4–)7–15 × 1.5–3 cm (distal leaf blades wider or narrower than sheaths when sheaths opened, flattened), base symmetric, rounded to broadly cuneate, apex acute, margins ciliate or ciliolate, not variegated, suffused with purplish violet, glabrous or glabrescent. **Inflorescence** terminal, often becoming leaf-opposed, pedunculate; peduncles (3.5–)4–13 cm long; bracts similar to leaves (also folded and keeled) but usually greatly reduced. **Flowers** subsessile; pedicels 4–9 mm long, densely white-pilose at summit. **Sepals** distinct, 7–10 mm long, pilose basally. **Petals** ± connate at base, clawed, 1.5–2 cm long, pink. **Stamens** slightly epipetalous; filaments very sparsely bearded. **Fruit** a capsule, c. 3.5 mm long, glabrous. **Seed** 2.5–3 mm long. **Distribution**: S, SA. (Fig. 260).

References: Hunt (2001), Faden (2010).

This species belongs to section *Setcreasea*, which is distributed from Mexico to Texas in the USA (Hunt, 1980).

The widely grown form with dark purple stems and leaves (‘Purple Heart’ or ‘Purpurea’) (Fig. 261) and pink flowers (Fig. 262) is that which has escaped on occasion in South Africa. It was an introduction to horticulture from Mexico, but like *Tradescantia zebrina*, it is not known in the wild (Hunt, 1984, but see Faden, 2008).

Fig. 260. Distribution map of *Tradescantia pallida* (Rose) D.R.Hunt.

Fig. 261. *Tradescantia pallida* (Rose) D.R.Hunt. (Picture by Geoff R. Nichols)

Fig. 262. Flower of *Tradescantia pallida* (Rose) D.R.Hunt. (Picture by Neil R. Crouch)