

NOTES ON SOME PLANTS OF SOUTHERN AFRICA CHIEFLY FROM NATAL: XIV*

O. M. HILLIARD & B. L. BURTT

ABSTRACT. Thirty four items are annotated, of which 15 deal with *Dierama* (Iridaceae) preparatory to a generic revision: these include diagnoses of 12 new species. *D. medium* var. *mossii* is raised to specific rank; *D. pansum* is reduced to *D. igneum*, and two species, *D. davyi* and *D. rupestre*, are included in *D. insigne*. There is a new species of *Diascia* (Scrophulariaceae) from Transkei, and *Passerina drakensbergensis* (Thymelaeaceae—already validated by a diagnosis) is fully described. Annotations and extensions of range are given for *Brachystelma caffrum* (Asclepiadaceae), *Costularia natalensis* (Cyperaceae), *Dolichos angustissimus* and *D. linearis* (Leguminosae), *Eucomis humilis* (Liliaceae), and *Annesorhiza wilmsii* and *Peucedanum zeyheri* (Umbelliferae). The S American *Diodia dasycephala* (Rubiaceae) is recorded as an alien in South Africa (near East London) for the first time. Three generic names in Umbelliferae, proposed in 1840 by Rafinesque and having priority over those in current use, are adopted: *Anginon* for *Rhyticarpus*, *Dasidesmus* for *Heteroptilis* and *Itasina* for *Thunbergiella*. New specific combinations are made where necessary.

ASCLEPIADACEAE

532. *Brachystelma caffrum* (Schltr.) N.E. Br. in Gard. Chron. 16:62 (1894); R. A. Dyer in Fl. S. Afr. 27, 4:19 (1980) & Ceropegia, *Brachystelma* and *Riocreuxia* in Southern Africa 53, fig. 24 (1983).

Type: E Cape, Pirie Mt, 1230-1400m, *Sim* 315 (K, lecto.; NU).

Syn.: *Tapeinostelma caffrum* Schlechter in Verh. bot. Ver. Prov. Brandenb. 35:54 (1893).

TRANSKEI. 3128 DA, NW of Umtata, Nqadu, among flat rocks in grassland, 11 xii 1985, *Hilliard & Burtt* 18780 (E, KEI, NU).

When Dyer wrote about this plant in 1983 it was still known only from its type locality on Pirie Mountain and from a site just south of Stutterheim, a few kilometres to the north-east. We have now found it in Transkei, at Nqadu, northwest of Umtata, and about 160km north-east of Stutterheim.

CYPERACEAE

533. *Costularia natalensis* C.B. Cl. [in Durand & Schinz, Conspect. Fl. Afr. 5:658 (1894) nomen] in Thiselton-Dyer, Fl. Cap. 7:274 (1898).

Syntypes: Natal, *Buchanan* 152, 354 (K).

Syn.: *Tetraria natalensis* (C.B. Cl.) Koyama in J. Fac. Sci. Univ. Tokyo, sect. 3, 8:75 (1961).

TRANSVAAL. Pietersburg distr., 2329 DD, Wolkberg, *Davidson* 3114 (E); 2330 CC, Wolkberg, New Agatha Forest Station, 5300ft, 12 iii 1981, *Hilliard & Burtt* 14315 (E, NU). Pilgrim's Rest distr., 2430 DD, Graskop, near God's Window, 14 iii 1981, *Hilliard & Burtt* 14342 (E, NU); 2530 BA, Sabie-Lydenburg, Long Tom Pass, 15 iii 1981, *Hilliard & Burtt* 14362 (E, NU); 2530 BB, Witklip summit above Forest Station, 8 iii 1981, *Hilliard & Burtt* 14279 (E, NU).

*Continued from *Notes RBG Edinb.* 43:345-405 (1986).

NATAL. Ngotshe distr., 2731 CD, Ngome, c.3500ft, 1 iv 1977, *Hilliard & Burt* 9927 (E, NU). New Hanover distr., 2930 BD, Little Noodsberg, Laager Farm, 3500ft, 24 iv 1981, *Hilliard & Burt* 14504 (E, NU); *ibidem*, 12 ii 1982, *Hilliard & Burt* 15465 (E, NU). Umzinto distr., 3030 AD, farm Ellesmere B, c.2400ft, 27 iv 1981, *Hilliard & Burt* 14532 (E, NU).

The type locality of the original material of *Costularia natalensis* was not recorded, but it is probable that it came from the general area of the Noodsberg, where we ourselves have found it growing near a number of other species discovered by the Rev. J. Buchanan (see *Notes RBG Edinb.* 42:227, 1985). Till recently the only other record from Natal has been one from the Karkloof range (Gordon-Gray in Ross, *Fl. Natal*, 111 (1973) quoting *Rycroft* 49). The above citations extend its known distribution in Natal both southwards to the Umzinto district and northwards to Ngome. It is a plant of rough grassland and has almost certainly suffered heavily from the planting up of the grasslands for timber.

We have added our own records from the Transvaal, not the first from that region. *Costularia natalensis* has also been recorded from the Chimanimani mountains in E Zimbabwe, and from Mt Mulanje in Malawi. We have collected it on Mulanje, but the plant there has a graceful inflorescence with very dark pendulous spikelets, while that collected in Natal and the Transvaal is stiffer, with erect brown spikelets. The taxonomy of the tropical material needs to be carefully checked.

IRIDACEAE

(O. M. HILLIARD)

534-548. *Dierama* C. Koch in Ind. Sem. Hort. Berol. 1854, App. 10 (1855) & in Walpers, Ann. Syst. 6:42 (1861).

Type species: *D. ensifolium* Koch & Bouché [= *D. pendulum* (L.f.) Bak.]

Diagnoses of a number of new species are published here in order that the names may be validated and applied to plants in cultivation. We also publish, without comment, reductions of a few existing names to synonymy. New species relating to the account for the Flora of Tropical East Africa are published by Mr W. Marais in a following paper (*Notes RBG Edinb.* 45:105). A revision of the genus, illustrated with paintings by Mrs Auriol Batten, is being prepared and will include full descriptions.

In the descriptions the inflorescence comprises the main florescence, referred to as the terminal spike, and the lateral members, called cofilorescences.

534. *Dierama adelphicum* Hilliard, species nova *D. dissimili* Hilliard (vide infra) proxime affinis sed caulibus plerumque altioribus ad 120cm (nec 70cm), foliis paulo latioribus (plerumque 3-5mm nec 2-3.5mm), floribus cofilorescentiarum numerosioribus (5-9 nec plerumque 3-5) et bracteis angustioribus (4-6mm latis nec 6-9mm) differt. Ab *D. gracili* N. E. Br. etiam affini, caulibus altioribus singularibus vel paucis (nec valde caespitosus), cofilorescentiis numerosioribus (5-7 nec 1-5), floribus laxioribus et bracteis validius nervosis differt.

Type: Transvaal, 2530 BB, Mac Mac Forest Station, 23 x 1985, *Hilliard & Burt* 18440 (E holo., NU iso.).

Dierama adelphicum ranges from the north-eastern Transvaal (Magoebaskloof) southwards as far as Badplaats (between Carolina and Barberton) and perhaps into Swaziland.

535. *Dierama ambiguum* Hilliard, species nova *D. dracomontanum* Hilliard (vide infra) affinis, sed differt venis bractearum multis basi coalescentibus aream solidam formantibus (in *D. dracomontanum* venis bractearum paucis valde separatis connectivo inter se tenui membranaceo); etiam floribus in spica terminali 7–11 (nec 4–7), et in corymbis 5–9 (nec 2–5), perianthii tubo 6–10mm longo (nec 5–7mm).

Type: Natal, 3029 DA, near Weza, Zuurberg, c.5000ft, 26 ii 1975, *Hilliard & Burt* 8071 (E holo.; K, NU, PRE, S iso.).

Dierama ambiguum is restricted to a small area in southern Natal and adjacent Transkei and is distinguished from other species in that area by the 'solid' patch at the base of the bracts.

536. *Dierama dissimile* Hilliard species nova *D. dracomontanum* Hilliard (vide infra) affinis, sed caulibus solitariis vel paene solitariis (nec valde caespitosus), foliis plerumque angustioribus (2–3.5mm latis nec 3.5–6mm), pedunculis corymbis longioribus (infimis 50–100(–140), nec 30–65(–100mm), perianthii plerumque minore (18–22 nec 19–29mm longo), et stigmatibus 4–8mm sub apice perianthii positus (nec 7–12mm).

Type: Natal, 2929 CB, Underberg distr., Cobham Forest Station, 5700ft, 10 xi 1980, *Hilliard & Burt* 13388 (E holo., NU iso.).

Dierama dissimile ranges from Mt Majuba on the Natal-Transvaal border near Charlestown to the main Natal Drakensberg and its outliers and on into the mountainous areas of Transkei. It stands apart from *D. dracomontanum* in the same areas by reason of its more or less solitary stems: *D. dracomontanum* is strongly clumped.

537. *Dierama dracomontanum* Hilliard, species nova *D. dissimile* Hilliard (vide supra) et *D. floriferum* Hilliard (vide infra) affinis. A *D. dissimile* habitu dense caespitoso, floribus plerumque majoribus (perianthio 19–29mm longo, nec 18–22mm) et foliis latioribus (3.5–6.5mm, nec plerumque 2–3.5mm). A *D. floriferum* floribus majoribus (perianthio 19–29mm longo, nec 15.5–20.5mm), stigmatibus 7–12mm infra perianthii apicem (nec 3.5–7.5mm), corymbis paucioribus (3–4, nec 4–9) flores pauciores (2–5, nec 4–8) gerentibus. Insuper *D. dracomontanum* floret Nov.–Feb., serius quam *D. dissimile* (Oct.–Nov.) et *D. floriferum* (Aug.–Oct.).

Type: Natal, Mpendhle distr., 2929 BC, Highmoor Forest Reserve, ridge SE of Giant's Castle, headwaters of Elandschoek river, 7800ft, 6 i 1983, *Hilliard & Burt* 16259 (E holo., NU iso.).

Dierama dracomontanum ranges from the north-east Orange Free State to the eastern Cape, and may be dominant on mountain slopes between c.1525–2800m in the Drakensberg. It is illustrated, as *Dierama* sp. nov., in Hilliard & Burt, *Botany of Southern Natal Drakensberg* tab. 13c (1987).

538. *Dierama erectum* Hilliard, *species nova* *D. insigni* N. E. Br. affinis sed habitu caespitoso, foliis latioribus (6–10mm nec 2–6mm), inflorescentiis erectis et coflorescentiis numerosioribus (c.10, nec 2–4) facile distinguitur. Type: Natal, 2731 DD, Ngome, c.3500ft, 1 iv 1977, *Hilliard & Burt* 9901 (E holo., NU iso.).

Like *D. inyangense*, described below, *D. erectum* belongs to the group with a 'solid' base to the bracts. At present it is known only from northern Natal. It is distinguished from the other members of this group by its erect flowers.

539. *Dierama floriferum* Hilliard, *species nova* *D. medio* N. E. Br. affinis sed habitu caespitoso et coflorescentiis pluribus (plerumque 4–9 nec 2–3) distinguenda. *D. dracomontano* etiam affinis sed floribus minoribus (15.5–20.5mm nec 19–29mm), coflorescentiis plerumque pluribus (4–9 nec 3–4) flores plures (4–8, nec 2–5) tenentibus differt. Type: Natal, 2930 AC, Lion's River district, Curry's Post to Nottingham Road, 18 xi 1980, *Hilliard & Burt* 13482 (E holo., NU iso.).

Dierama floriferum is common in the grasslands of Natal between 800 and 1675m above sea-level and just reaches into SE Transvaal. It has generally been referred to *D. medium* N. E. Br., a name under which N. E. Brown himself included several different entities but which is now to be restricted to a plant of the eastern Transvaal and Swaziland. Brown's attribution of the type specimen of *D. medium* to Natal was erroneous. *D. floriferum* is replaced at higher altitudes in Natal by *D. dracomontanum*.

540. *Dierama formosum* Hilliard, *species nova* *D. cupulifloro* Klatt affinis sed habitu robustiore, caulibus, floriferis saepe 0.75–1.65m altis (nec 0.3–1.35m), cormis majoribus 30–35mm diam. (nec 10–20 raro ad 25mm diam.), floribus numerosioribus 6–10 in spica terminali (nec 2–6), tepalis ellipticis (nec oblongis) differt. Type: Zimbabwe, summit Inyangani Mt, 8500ft, 7 x 1962, *Plowes* 2268 (K holo., PRE iso.).

D. formosum is known from Malawi (Zomba and Mulanje mountains), the eastern highlands of Zimbabwe, Mt Gorongosa in neighbouring Mozambique, and the eastern Transvaal.

541. *Dierama igneum* Klatt in Abhandl. Naturf. Ges. Halle 15:388 (1882). Type: Stockenstrom Div., between Kat and Klipplaat River, *Drège* 3491 (B†).

Syn.: *D. pansum* N. E. Br. in J. Roy. Hort. Soc. 54:201 (1929). Type: Botanical Register tab. 1360 (1830)—spec. ex hort. Herbert (CGE).

542. *Dierama insigne* N. E. Br. in J. Roy. Hort. Soc. 54:198 (1929).

Type: Transvaal: Rayton, *Rogers* 12931 (K).

Syn.: *D. davyi* N. E. Br. in J. Roy. Hort. Soc. 54:198 (1929). Type: Transvaal, Oshoek, *Burt* *Davy* 2719 (K, PRE).

D. rupestre N. E. Br. in J. Roy. Hort. Soc. 54:198 (1929). Type: Transvaal, Barberton distr., near Berlin by the Godwan River, Hofmeyr & Davison 82 (K, PRE).

543. *Dierama inyangense* Hilliard, species nova *D. insigni* N. E. Br. proxime affinis sed foliis plerumque latioribus (5.5–7.5mm nec 2–4.5(–6)), floribus majoribus (32–43mm longis nec 22–36mm), tepalis 22–28mm longis (nec 15–20mm), antheris majoribus (8–10mm nec 5.5–7.5mm) et stigmatibus profundius in perianthio positis (8–16mm sub perianthii apice nec 1–8.5mm) distinguenda. Foliis latis etiam *D. densifloro* Marais affinis sed florum omnibus partibus majoribus et stigmatibus profundius in perianthio positis differt.

Type: Zimbabwe, Inyanga, c.7000ft, 20 ii 1965, Plowes 2678 (SRGH holo., K iso.).

This species is endemic to the eastern highlands of Zimbabwe and the adjacent part of Mozambique. Like *D. insigni* and *D. densiflorum* Marais it belongs to the small group that has the basal part of the bracts 'solid', not merely membranous between the veins.

544. *Dierama jucundum* Hilliard, species nova *D. dracomontano* Hilliard affinis sed floribus majoribus perianthio 25–28mm longo (nec 19–25mm), tepalis plerumque latioribus (8–12mm, nec 5–8mm) et antheris majoribus (6–8.5mm nec 5–6.5mm) differt.

Type: Cape, 3127 BB, Barkly East distr., Fetcani Pass, fl'd in RBG Edinb. 27 vii 1986, Hilliard & Burt 13140 (E holo., NU iso.).

Dierama jucundum is as yet known only from the type specimen and another from southern Lesotho (3027 AB, Mohale's Hoek to Mafeteng, Schmitz 7891). It thus appears to grow outside the range of *D. dracomontanum*, but this area is ill-explored botanically and it is fairly certain that the known ranges of both species will be extended in due course. *D. jucundum* has light mauve flowers, whereas those of *D. dracomontanum* vary from pink to red.

545. *Dierama mobile* Hilliard, species nova *D. dubio* N. E. Br. affinis sed bracteis bene coloratis (nec albis vel leviter brunneo-lineolatis) et saepe brevioribus (14–19mm, nec plerumque 16–24mm) et latioribus (6–10mm, nec 5–8mm) et itaque obovatis vel elliptico-lanceolatis (nec lanceolatis). *D. picto* N. E. Br. etiam affine sed pedunculis cofilorescentiarum longioribus (plerumque 90–230mm nec 60–100 raro ad 125mm), et bracteis ad margines pallidis sed non, ut in *D. picto* albidis et venis 4–5 tantum (nec 6–8).

Type: Transvaal, Barberton distr., Fairview Mine, Russell's Beacon, 22 x 1965, Mauve & Scheepers 1 (PRE holo., K iso.).

Dierama mobile, which takes its name from the long peduncles of the lateral inflorescences (cofilorescences), appears to be confined to the SE Transvaal and W Swaziland. In the latter area it is sympatric with *D. pictum* and there the bracts of *D. mobile* tend to become distinctly white on the shoulders, while the peduncles of *D. pictum* are longer than usual. Hybridization is therefore a distinct possibility.

546. *Dierama mossii* (N. E. Br.) Hilliard, comb. et stat. nov.

Lectotype (chosen here): Transvaal, Premier Mine [ENE of Pretoria], 13 x 1917, Moss 4313 (K).

Syn.: *D. medium* N. E. Br. var. *mossii* N. E. Br. in J. Roy. Hort. Soc. 54:201 (1929); Verdoorn in Fl. Pl. S. Afr. tab. 855 (1942).

Dierama mossii differs from *D. medium* in having laxer inflorescences with generally larger flowers (mostly 19–25mm long, not 13–18mm), larger anthers (6–7mm, not 4.5–6mm), and stigmas often deeper within the perianth (5–12mm, not 2–6.5mm). Both species favour damp ground but *D. mossii* is often recorded as forming large colonies in marshes. It ranges further west than *D. medium*, reaching Nylstroom and Rustenburg, but it is sympatric with *D. medium* in the SE Transvaal and around Forbes' Reef in Swaziland.

547. *Dierama nebrownii* Hilliard, species nova *D. picto* N. E. Br. affinis sed foliis brevioribus et angustioribus (usque ad 550 × 4mm nec 500–750 × 3.5–7mm), floribus spicae terminalis saepe paucioribus (6–11, nec 9–17), tepalis longioribus (14–23mm, nec 10–15mm), stigmatibus profundius in perianthio positis (8–12mm sub apice perianthii, nec usque ad 6mm) differt. A *D. medio* N. E. Br. habitu robustiore, floribus majoribus (20–29mm longis, nec 13–18mm), tepalis 14–23mm longis (nec 8–15mm) recedit.

Type: Transvaal, 2530 AC, 6 miles NE of Dullstroom, 6800ft, 2 xi 1949, Codd 5640 (PRE holo., K iso.).

Most collections of *Dierama nebrownii* come from a small area of E Transvaal, from the mountains between Lydenburg and Belfast; there is one record from further south near Kaapsche Hoop.

548. *Dierama tyrium* Hilliard, species nova *D. atro* N. E. Br. affinis sed planta plerumque altiore (1.2–2m, nec 0.75–1.25m), flores in spica terminali pluribus (8–18, nec 4–8) intense purpureis (nec atrorubris), cofiloscentiis pluribus (5–11 nec 1–5) floribus pluribus (6–13 nec 2–7) emittentibus, bracteis angustioribus (5–8mm, nec 8–11mm) differt. A *D. dubio* N. E. Br., etiam affini, bracteis intense coloratis (nec albidis) et tenuius venosis et perianthio majore (22–31mm longo, nec 14–19mm) recedit.

Type: Natal, 2731 CA, Louwsburg, Itala Nature Reserve, c.1300m, 25 ii 1984, Hilliard & Burt 17723 (E holo., NU iso.).

Dierama tyrium ranges from northern Natal through the SE and E Transvaal as far north as Haenertsburg and grows in open rocky terrain between about 1200 and 2100m above sea-level, flowering mainly between December and March.

LEGUMINOSAE

(O. M. HILLIARD)

We are indebted to the Curators of P, S and TCD for the loan of material in connection with the following two items.

549. *Dolichos angustissimus* E. Meyer, Comm. Pl. Afr. Austr. 142 (Feb. 1836); Schreiber in Prodr. Fl. S.W. Afr. 60, Fabaceae 34 (1970).
Lectotype (chosen here): Cape, Stormberg (Ia), 5000–5600ft, 18 xii 1832, Drège b (P).

Glabrous perennial herb. *Stems* several, tufted from the base, up to 45cm long, often decumbent then erect, simple or sparingly branched, the tips sometimes twining. *Leaves* either pinnately or digitately trifoliate, sometimes digitate below, pinnately trifoliate above, leaflets 35–100 × 2–6mm, of the order (6–)11–50:1, linear to linear-lanceolate, frequently complicate. *Peduncles* axillary, either shorter than or exceeding the petiole, flowers 1 to several and then in crowded pairs. *Calyx* bilabiate, the anticus lobe 1.5–2.25 × 1–1.75mm. *Standard* c.7mm long, dull pink, with a purple spot between the upper pair of auricles. *Style* slightly dorso-ventrally compressed, weakly channelled up the inner face, bearded up the inner face at least in upper half, hairs sometimes extending right round the style near the apex, base swollen. *Ovary* glabrous except for sparse hairs on the upper suture, sometimes extending onto the swollen base of the style, these hairs rarely absent; ovules 4–7.

NAMIBIA. Windhoek distr., farm Lichtenstein, 28 i 1923, Dinter 4400 (S).

TRANSVAAL. Pretoria distr., sandy flats near Pretoria, Scott Elliot 1384 (E); Magaliesberg, Wahlberg s.n. (S); Piet Retief distr., Iswepe, 18 xi 1948, Sidey 1549 (S); Carolina, xi 1917, Rogers 19583 (S).

NATAL. Bergville distr., Spioenkop Dam Nature Reserve, x 1975, van Rensburg 76 (E, NU). Estcourt distr., Tabamhlope, 6000ft, 14 x 1907, Wylie com. Wood 10477 (E, S). Lion's River distr., 2930 AC, Dargle Farm, Fannin 44 (TCD). Mpendhle distr., 85km from Nottingham Road on Himeville–Loteni road, i x 1974, Smook 593 (E, NU). Underberg distr., 2929 CB, upper Umkomaas area, Nhlangeni Valley, 6350ft, 20 ii 1985, Hilliard & Burt 18240 (E, NU). Polela distr., Mawahqua Mt, Sunset Farm, 10 xi 1973, Hilliard & Burt 7166 (E, NU, S); Glengariff & Prosperity farms, 5000ft, 15 x 1972, Rennie 161 (E, NU). Matatiele distr., 2929 CC, Umzimvubu river just below farm Linton, c.6000ft, 9 i 1986, Hilliard & Burt 18996 (E, NU); 3029 AA, Swartberg–Matatiele road at New Amalfi turnoff, 8 i 1986, Hilliard & Burt 18910 (E, NU).

CAPE. Molteno, 6300ft, xii 1892, Flanagan 1582 (S).

ORANGE FREE STATE. Nieuwejaarspruit [3026 DB], Ecklon & Zeyher s.n. (S).

In the course of our work in the southern Natal Drakensberg we found two species of *Dolichos*. These, according to Harvey's account of Leguminosae in *Flora Capensis* 2, appeared to be *D. angustifolius* Ecklon & Zeyher and *D. linearis* E. Meyer. *Dolichos angustifolius* Ecklon & Zeyher (*Enum. Pl. Afr. Austr.* 258, Jan. 1836) is antedated by *D. angustifolius* Guill. & Perr. (1832), but it seemed possible to take up the name *D. angustissimus* E. Meyer, cited by Harvey as a synonym of *D. angustifolius*. Harvey described *D. linearis* as being very like *D. angustifolius* 'and only to be accurately distinguished by the style': 'slender, subterrate, with an encircling tuft of hairs below the extremity'. Furthermore, Ross (*Flora of Natal*, 1972, p. 209), suggested that *D. angustifolius* is 'doubtfully distinct from *D. linearis*' and did not record the latter species from Natal.

Both species in the Natal Drakensberg proved to have the style bearded down the inner face with the hairs sometimes extending more or less all round the style near its tip. None of the material available to us in the Edinburgh herbarium, from the Cape, Transvaal and Natal, had the encircling tuft of hairs described by Harvey. Meyer placed *D. angustissimus* in his section '*stylo canaliculato superne ad longitudinem barbato*', which is clear enough, but he placed *D. linearis* in his section '*stylo teretiusculo circumcirca hirsuto*', a somewhat ambiguous description that could refer to either an encircling tuft of hairs or to a terete style hairy all round.

The source of Harvey's description of the style of *D. linearis* proved to be a specimen collected by Mrs Barber (no. 57) in the Queenstown district of Cape Colony and preserved in Trinity College, Dublin. The dissection in a capsule on the sheet showed that Harvey had examined a freak style with a swelling and hairs about 1mm below the tip, quite different from the encircling tuft of hairs immediately below the stigma that occurs in many species of *Dolichos* (see, for example, Verdcourt in *Kew Bull.* 24:386, fig. 2 nos. 8, 9, 10, 12, 1970). Other flowers and a young pod on the specimen have normal styles bearded in the upper part. This plant is mentioned again below.

Meyer's name *D. angustissimus* was based on three specimens collected by Drège: (a) between the Klipplaat River and the Zwart Key [Kei]; (b) Stormberg; (c) Mooypplaats, between 4000 and 5500ft (all Ia). Meyer's original specimens were in his herbarium at Lubeck, later transferred to Berlin, and there destroyed in the 1943 fire. The Paris herbarium yielded duplicates of both the Stormberg and the Klipplaat collections. We have chosen the Stormberg specimen as lectotype. The style is faintly channelled down the inner face and there bearded, from the apex almost to the base, and it fits the rest of Meyer's brief description. It proves to be the same plant as one of the two with which we are familiar in Natal.

A specimen of the Drège collection from Mooypplaats (*D. angustissimus* c) is preserved at S; it probably is *D. angustissimus*, but the flowers have been damaged by insects. The plant from the Klipplaat river (distributed as *D. angustissimus* a, and sheets in E, P, S and TCD seen by us) differs from the Stormberg plant: it represents a third species standing apart in its smaller anticous calyx lobe ($1 \times 0.75-1.5$ mm), in having a swelling at the base of the style, which is distinctly channelled on either side while the inner face of the style itself is not channelled, and in the lack of hairs along the upper suture of the ovary. This plant is matched by Barber 57 (TCD) from Queenstown (mentioned above), Sidey 3737 (S) from Queenstown, and by Schlechter 2560 (E) from Uitenhage. We have seen one of the syntypes of *D. angustifolius*, namely Zeyher 228, Zwartkops River, district of Uitenhage (E, S, TCD); the flowers are too young to be certain that the swollen style base is channelled on either side, but it accords well in facies with the Schlechter specimen from the same general area. It seems then that this plant requires description as the name *D. angustifolius* Ecklon & Zeyher is not available; the material is too poor to make a simple re-naming desirable.

Another sheet in TCD, bearing the printed ticket from the text of Ecklon & Zeyher's *Enumeratio*, is probably a duplicate of the second

syntype of *D. angustifolius*, namely a specimen from the Klipplaat river. The plant is *D. linearis*.

550. *Dolichos linearis* E. Meyer, Comm. Pl. Afr. Austr. 142 (Feb. 1836). Lectotype (chosen here): Cape, Stormberg (Ia), 4500ft, 16 ii 1832, Drège d (P).

Glabrous perennial herb. *Stems* of indeterminate length, filiform, twining throughout, sparingly branched. *Leaves* pinnately trifoliolate, main leaflets $32-77 \times 3-8$ mm, of the order 4-14:1, linear, linear-lanceolate or narrowly oblong, usually flat, sometimes complicate. *Peduncles* axillary, shorter than the petioles, 1-flowered. *Calyx* bilabiate, anticus lobe $1-1.25 \times 0.7-1$ mm. *Standard* c.5mm long, bright pink. *Style* very slightly dorso-ventrally compressed, weakly channelled down the inner face and there bearded, hairs sometimes extending right round the style near the apex, base swollen. *Ovary* glabrous; ovules 4-5.

NATAL. Estcourt distr., Kamberg, c.6300ft, 13 ii 1974, Wright 1627 (E). Mpendhle distr., 2929 AD, upper Loteni valley, vicinity Ash Cave, 6400ft, 5 ii 1985, Hilliard & Burt 18135 (E, NU). Underberg distr., 2929 CB, Upper Umkomaas area, vicinity Bird's Nest Cave, 6200ft, 20 ii 1985, Hilliard & Burt 18256 (E, NU).

TRANSKEI. 3028 AD, Ongeluk Nek, c.6000ft, 5 xii 1985, Hilliard & Burt 18670 (E, NU).

CAPE. Zwei Meilen südlich van Silo [Shiloh 3226 BB] Ecklon & Zeyher s.n. (S).

Meyer cited four Drège collections: (a) Zwartkops River below 100ft alt. (IV C, c); (b) Glenfilling, 500-800ft (Va); (c) Klipplaat River, 3400ft, and (d) Stormberg, 4500ft (both Ia). Meyer's own specimens were destroyed in the Berlin fire, but the Paris herbarium has duplicates of the Stormberg and Klipplaat collection, and the Klipplaat collection is also in the Edinburgh herbarium. We have chosen the Paris sheet of the Stormberg collection to lectotypify the name: it has two good flowers; the Klipplaat collection has fruits and one flower (P) or young buds (E). There is a duplicate of the Glenfilling collection in S, and the plant proves to be *D. angustifolius*.

Despite Meyer's placing *D. angustissimus* and *D. linearis* in different sections, their styles are similar: the channelling down the face of the style may be difficult to see even with a good modern dissecting microscope equipped with good lighting. But the species are easily distinguished by the difference in habit and by the difference in the length of the anticus calyx lobe; also, the leaflets of *D. angustissimus* are mostly narrower in relation to their length than are those of *D. linearis* (see ratios given in the descriptions), there are often more ovules in the ovary of *D. angustissimus* and there are nearly always sparse but relatively long hairs on the upper suture of the ovary and on the swollen style base.

LILIACEAE

551. *Eucomis humilis* Baker in Kew Bull. 1895:162 and in Thiselton-Dyer, Fl. Cap. 6:476 (1897).

Type: Natal, [Estcourt distr., 2929 BA] summit of Tabamhlopi Mountain, 6000-7000ft, Evans 398 (K).

TRANSVAAL. Wakkerstroom distr., farm Oshoek, 6400–6600ft, 28 xii 1960, *Devenish* 436 (K).

ORANGE FREE STATE. Without locality, 1862, *Cooper* 1194 (K), 1196 (K). NATAL. Bergville distr., Cathedral Peak Forest Station, 7300ft, *Killick* 1213 (K). Estcourt distr., South Downs, 5–6000ft, ii 1895, *Evans* 401 (K). 2929 BB, Mooi River, Bray Hill, c.5600ft, 20 i 1986, *Hilliard & Burt* 19093 (E, NU). Mpendhle distr., 2929 BC, Kamberg area, Storm Heights, c.7000ft, 15 xii 1978, *Hilliard & Burt* 11759 (E, NU); Mulangane ridge, above Carter's Nek, below cliffs on N side, 6000ft, 16 iii 1985, *Hilliard & Burt* 18422 (E, NU). Underberg distr., 2929 CB, Gxalingenwa Valley, between Sani Pass and Polela R., c.7200ft, 9 xii 1983, *Hilliard & Burt* 17096 (E, NU); Garden Castle Forest Reserve, valley west of forester's house, 6500ft, 3 ii 1975, *Hilliard & Burt* 7937 (E, NU).

Baker described *Eucomis humilis* as having the peduncle very short and cylindrical. However, the peduncles on the type specimen have clearly been cut above the base: it is not possible to say whether they tapered or not. Examination of a wide range of material of various species of *Eucomis* suggests that whether the peduncle is tapered or cylindrical is less important than sometimes supposed. Tall species, such as *E. comosa* (Houtt.) Wehrh. and *E. bicolor* Baker, have cylindric peduncles, dwarf species such as *E. schiffi* Reyneke and *E. clavata* Baker have tapered peduncles, which, given the thickness of the upper flowering part, is a physical necessity. Intermediate sized plants, such as those placed by Reyneke as *E. autumnalis* (Mill.) Chitt. subsp. *autumnalis* are, as this author has pointed out (*Bothalia* 13:140, 1980), intermediate in respect of peduncle-tapering. *E. humilis* is a dwarf plant and the peduncle was almost certainly tapered, as it is in *Hilliard & Burt* 7937, 17096, 18422, 19093 quoted above. These cannot be assigned to any other species, and it is only Baker's description of the peduncle of *E. humilis* that has hitherto militated against their inclusion here.

RUBIACEAE

552. *Diodia dasycephala* Cham. & Schlechtd. in Linnaea 3:348 (1828).

Type: S Brasil, *Sellow*.

E CAPE. East London distr., 3277 BB, road through Fort Grey Forest, roadside weed, 20 xii 1981, *Hilliard & Burt* 14862 (E, K, NU).

We noted the corolla as being white and 3-lobed, but it was originally described as 4-lobed. The species is a native of S America and has not, to our knowledge, been recorded previously from S Africa: we are indebted to Dr B. Verdcourt (Kew) for the determination; he tells us that the species has also been found in the Mascarene Islands and he has noted 2–3(–4) corolla lobes. The plant was growing on the narrow grassy verge of the road through Fort Grey Forest and was mixed with the native annual umbellifer *Sonderina humilis* (Meisn.) Wolff.

The genus *Diodia* is recorded for South Africa by R. A. Dyer (*Gen. S. Afr. Fl. Pl.* 624, 1975), but the only species mentioned is *D. natalensis* (Hochst.) Garcia and that is now referred to *Spermacoce*.

SCROPHULARIACEAE

553. *Diascia transkeiana* Hilliard & Burt, *species nova* *D. vigilis* Hilliard & Burt affinis, sed pubescentia pedicellorum brevior (pilis plerumque ad 0.25mm raro 0.5mm longis, nec plerumque 0.5mm longis), segmentis calycis anticis 1-1.5mm latis (nec 1.75-2mm), cornubus 4-5mm longis (nec plerumque 7-9mm), corollae limbo 13-17 × 12-15mm (nec 22-28 × 17-23mm) differt. **Fig. 1.**

Perennial herb, stems several to many from the crown, tufted, simple to sparingly branched, up to c.1m long, 2-3mm diam., straggling to weakly erect, glabrous. *Leaves* 11-40 × 7-40mm (ratio 1:1), ovate, base ± cordate, apex acute to obtuse, margins serrate, whole leaf glabrous; petioles 1-8mm long. *Flowers* several to many in lax terminal racemes, bracts up to 8 × 4mm, lanceolate, acuminate, glandular-pubescent; pedicels c.13-20mm long, filiform, ascending at an angle of c.45°, they and the axis of the inflorescence glandular-pubescent, hairs patent, mostly c.0.25mm long, occasional hairs 0.5mm. *Calyx* segments lanceolate, two anticus ones 4-5 × 1-1.5mm, three posticus ones slightly smaller, glandular-pubescent. *Corolla* tube c.4mm long, shortly invaginated, two lateral spurs 4-5mm long measured on the inside of the curve, curving downwards, the tips incurved, dark sessile glands at the tips within; limb 13-18 × 12-15mm, anticus lobe 6-10 × 7-10mm, lateral lobes c.5 × 5mm, posticus lobes c.2.5 × 3.4mm, all subrotund, pink, with scattered glandular hairs outside, glabrous inside except for a patch of dark sessile glands centrally placed on the palate, glands sometimes very few; 'window' shallowly concave and shallowly bi-lobed, c.1.5mm deep, 4mm broad, yellow blotched dark red. *Stamens* projecting forwards from the base of boss produced by the invagination of the corolla tube, filaments 2-3mm long, glandular-pubescent; anthers 0.75mm long, cohering. *Ovary* 1.5 × 1mm, deltoid in outline; style 1.5-2mm long, stigma capitate, lying between the anthers. *Capsule* not seen.

Type: Transkei, 3128 BC, Nqadu Forest, 18 ii 1986, *Hutchings* 2108 (E hol.; K, KEI iso.).

TRANSKEI. Hills near Engcobo, 13 x 1961, *Esterhuysen* 29250 (BOL); North of Umtata, Nqadu Forest, 11 xii 1985, *Hilliard & Burt* 18779 (E).

This is the plant that we enumerated as no. 9 in our revision of *Diascia* section *Ramosae* (in *J. S. Afr. Bot.* 50:301, 1984). Mrs Anne Hutchings found it growing in the coarse herbage on the upper margin of Nqadu Forest, north of Umtata, when she took us there in December 1985. The plants were then only coming into flower, and she was kind enough to return in the following February to collect good herbarium material as well as flowers in spirit.

It is a straggling herb, pushing its way up through other vegetation. In our revision, we suggested that its relationship lay with *D. stachyoides* and *D. fetcaniensis*, which are geographically closest to it but from which it can at once be distinguished by its oblong, not conical, 'window' as well as by other details of pubescence and floral morphology. Now that we have seen both living and spirit material, it appears to be more closely allied to *D. vigilis*, which occurs well to the north of the area of *D. transkeiana*, in the northern part of the Drakensberg in Natal and the

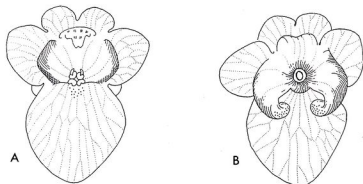


FIG. 1. *Diascia transkeiana* Hilliard & Burt. A, Corolla, front view ($\times 3$); B, corolla, back view ($\times 5$).

Orange Free State. *Diascia transkeiana* not only has smaller flowers than *D. vigilis* and shorter and sparser pubescence, but also the leaves are generally broader in relation to their length than in *D. vigilis* and the base is more markedly cordate.

THYMELAEACEAE

554. *Passerina drakensbergensis* Hilliard & Burt. in Hilliard & Burt, *The Botany of the Southern Natal Drakensberg* 233 (1987).

Type: Natal, Bergville distr., Cathedral Peak Forest Reserve, above Ndedema river, 6000ft, 5 xi 1985, *Hilliard & Burt* 18570 (E hol.; NU, PRE, PRF, iso.).

Shrub up to c.2m tall, young branches closely white-tomentose. *Leaves* appressed, up to 5.5–6.5mm long, linear, base somewhat narrowed, blade longitudinally folded and somewhat keeled, the tip sometimes incurved, outer surface (that is, lower surface) initially with few to many long white hairs, soon glabrescent, inner surface white-tomentose. *Inflorescences* spicate, subterminal, eventually overtopped by vegetative growth, axis white-villous. *Bracts* 4.75–6 \times 2.5–3mm, lanceolate, folded and keeled with 2–3 longitudinal striae each side and a narrow membranous margin, villous and glabrescent to glabrous outside, villous inside. *Receptacle* tube 3.5–4mm long, upper half white-villous, circumscissile above the fruit, lower half thinly pilose, enclosing the fruit. *Sepals* 2.75–3.5 \times 1.5mm, boat-shaped, thinly pilose on the backs or hairs confined to the tips, hairy inside. *Anthers* oblong, 1–1.25mm long. *Ovary* 1 \times 0.5mm, with a few hairs below the insertion of the style.

NATAL. Bergville distr., Royal Natal National Park, path to Mahai Falls, 6200ft, 26 x 1955, *Edwards* 973 (NU, PRE), 974 (E, NU, PRE); Cathedral Peak Forestry Station, Ndedema Valley, 6500ft, 30 xii 1957, *Killick* 2289 (PRE). Estcourt distr., Giant's Castle Game Reserve, c.4900ft, 28 iv 1961 [well past flowering], *Skead* 146 (NU); *ibidem*, Loembazo area, 5300ft, 21 xi 1967, *Trauseld* 860 (E, NU, PRE); *ibidem*, Mlombazo stream, 5600ft, 12 xi 1965, *Trauseld* 435 (E, NU).

This is the species referred to as *Passerina filiformis* L. by Killick in his papers on the Natal Drakensberg. It is, however, distinct from that

species and may be distinguished by its appressed leaves up to 6.5mm long (versus ascending or spreading and up to 8–15mm long) and bracts up to 3mm broad, the wings up to 0.5mm (versus c.4–6mm, at least half the breadth composed of membranous wing). This distinction is important, because *P. filiformis* is a constituent of 'fynbos' vegetation in the Cape and would be the only Cape species to form 'fynbos' in the Drakensberg. It does range as far north as Natal and Swaziland; in the Drakensberg it only just reaches an altitude of 1800m and we have seen it as a scattered streamside bush; it grows in comparable situations on the hills north of Umtata in Transkei. But in the eastern Cape we have seen it growing with *P. montana* among rocks; these two also grow close together in the Drakensberg.

Passerina drakensbergensis varies in degree of hairiness on the backs of the young leaves. The type collection shows a range from glabrous to sparsely hairy. In both the Trauseld collections, the young leaves have a few hairs on the backs, but the bracts are almost entirely glabrous. Edwards 973, 974 and Killick 2289 have both the bracts and the very young leaves pilose on the backs, while in Skead 146 they are both thinly hairy. However, there is no doubt that the plants are conspecific.

The sepals are hairy on the backs at least towards the tips, which at once distinguishes *P. drakensbergensis* from *P. vulgaris* Thoday; the relationship of our species lies with *P. montana* Thoday, which is distinguished not only by its terminal inflorescences, but also by its shorter leaves expanded at the base and bracts that are mostly shorter and also broader in relation to their length than those of *P. drakensbergensis* ($2.5\text{--}5 \times 2\text{--}4\text{mm}$ versus $4.75\text{--}6 \times 2.5\text{--}3\text{mm}$).

Leaves in *Passerina* are opposite and decussate; consequently a leaf does not overlap with one in the pair immediately above, and overlaps the next leaf in line above it only if its own length is more than twice the length of an internode. In *P. montana* and *P. drakensbergensis* this is usually not the case, but *P. filiformis* has both longer leaves and shorter internodes; leaf overlap is therefore inevitable and leaves are not necessarily tightly appressed: they may be ascending or somewhat spreading. Killick 1973 from 6800ft (2070m) in the stream valley of the upper Indumeni at Cathedral Peak is a sterile specimen with leaves on the lower parts of the shoots up to 8mm long, but still only reaching the base of the leaf vertically above it. *Passerina* needs to be re-collected in this area.

Passerina drakensbergensis has been recorded only from the northern part of the Natal Drakensberg, from Royal Natal National Park to Giant's Castle Game Reserve, at altitudes ranging from c.1500 to 1980m. Its collectors record it as growing along stream and river banks, sometimes marginal to forest patches; we saw it in almost pure stands on steep slopes above the Ndedema gorge. Its ally, *P. montana*, also grows along streams, but is common on rock sheets and in other rocky places, and has both a wider altitudinal and geographical range: between 1200 and 3000m in Natal, but down to 900m in the southern part of its range in the eastern Cape; it extends northwards to the eastern Transvaal and the highlands of Zimbabwe.

Passerina montana is common in parts of the Drakensberg and occurs

in two rather distinct forms. On rock platforms it grows as a low dense rounded bush 0.3–1 m high, the tips of the branchlets erect; in the valleys it may be found as a riverside bush up to 2 m high, with open branching and the tips of the branchlets pendulous. It is not known whether the differences between these two forms are edaphic or genetic; both forms show unequivocally the specific characters: short appressed broad-based leaves and the inflorescence terminating the growth of the branchlets.

We are indebted to Colin Everson, Cathedral Park Forest Research Station, for locating *P. drakensbergensis* for us at Cathedral Peak, and to Steve Hardy for guiding us to the site.

UMBELLIFERAE

(B. L. BURTT)

The following notes include the adoption of three old generic names proposed by Rafinesque in 1840, which antedate those currently in use. These are: *Anginon* Raf. for *Rhyticarpus* Sonder, *Dasispermum* Raf. for *Heteroptilis* Meisner and *Itasina* Raf. for *Thunbergiella* H. Wolff. These changes are extremely irritating, but could only be avoided by conservation. *Heteroptilis* and *Thunbergiella* are both monotypic and *Rhyticarpus* contains only 3–4 species: all three are endemic to South Africa. There is, in my view, very little chance that any of these would be accepted for conservation if proposed. Furthermore the verdicts would probably not be known for two years at least. It seems sensible to accept the changes without argument and get used to them as quickly as possible. In these notes I quote the basionyms of the new names, currently used names and the name under which the plant appears in Sonder's account in *Flora Capensis* (2:524–567, 1862). There is often a long and complicated synonymy, which will be unravelled in an annotated check-list of South African Umbelliferae that I am preparing.

555. *Anginon* Rafinesque, Good Book 56 (1840), reimp. Scad. Gen. Omb. Pl. 56 (Amer. Midl. Nat. Repr. No. 3, 1913); Merrill, Index Rafinesquianus 178 (1949).

Type species: *A. rugosum* (Thunb.) Raf.

Syn.: *Rhyticarpus* Sonder in Harvey & Sonder, Fl. Cap. 2:540 (1862); Briquet in Bull. Herb. Boiss. 5:451 (1897); H. Wolff in Pflanzenr. Heft 43 (Umbell. Bupleurum &c): 175 (1910).

556. *Anginon difforme* (L.) B. L. Burtt comb. nov.

Type? LINN 335.28 (there are two specimens on this sheet: lectotype to be chosen).

Syn.: *Bupleurum difforme* L., Sp. Pl. 238 (1753); Sonder in Harv. & Sonder, Fl. Cap. 2:541 (1862).

Rhyticarpus difformis (L.) Briq. in Bull. Herb. Boiss. 5:451 (1897).

557. *Anginon rugosum* (Thunb.) Raf., Good Book 56 (1840), reimp. Scad. Gen. Omb. Pl. 56 (Amer. Midl. Nat. Repr. No. 3, 1913); Merrill, Index Rafinesquianus 178 (1949).

Type. [Calvinia div.] Hantam Mts, *Thunberg* (UPS; IDC sheet No. 6867).
Syn.: *Conium rugosum* Thunb., Prodr. Pl. Cap. 50 (1794), Fl. Cap. 2:203 (1818), ed. Schultes 258 (1823).

Rhyticarpus rugosus (Thunb.) Sonder in Harvey & Sonder, Fl. Cap. 2:540 (1862).

558. Anginon (*Rhyticarpus paniculatus* (Thunb.) Koso-Poljansky in Russk. Bot. Žurn [Journ. Russe Bot.] 1913, 7, tabl. 4).

Type: Cape, without locality, *Thunberg* (UPS; IDC sheet 7054).

Syn.: *Sium paniculatum* Thunb., Prodr. Pl. Cap. 50 (1794), Fl. Cap. 2:209 (1818), ed. Schultes 261 (1823).

Koso-Poljansky also cites in synonymy: *Trinia uitenhagensis* Eckl. & Zeyh. and '*Rhyticarpus rugosus* Harv. & Sond.; Wolff in Pflanzenr. IV. 228:177'. He gave no explanation or argument for his new name and it is impossible to tell from the above whether he simply thought the type of *Conium rugosum* belonged to some other species or whether he was trying to separate a western *R. rugosum* from an eastern *R. paniculatum*. He may have been misled by the indication in *Index Kewensis* that *Conium rugosum* = *Capnophyllum jacquinii* DC. In any case I prefer not to transfer *R. paniculatus* to *Anginon* until its status is clarified.

559. Anginon swellendamense (Ecklon & Zeyher) B. L. Burtt, **comb. nov.**

Type: Cape, Swellendam, between Kochmanskloof and Gauritz river, *Ecklon & Zeyher* 2194.

Syn.: *Trinia swellendamensis* Ecklon & Zeyher, Enum. Pl. Afr. Austr. Extratrop. 340 (1837).

Rhyticarpus ecklonis Sonder in Harvey & Sonder, Fl. Cap. 2:540 (1862), nom. illegit. Type as above.

Rhyticarpus swellendamensis (Ecklon & Zeyher) Briq. in Bull. Herb. Boiss. 5:457 (1897).

560. Annesorhiza wilmsii H. Wolff in Bot. Jahrb. 48:276 (1912); Burtt Davy, Man. Fl. Pl. Ferns Transvaal 2:519 (1932).

Type: Transvaal, Lydenburg, *Wilms* 554 (B†).

Syn.: [*Annesorhiza flagellifolia* auct. non Burtt Davy; Compton, Fl. Swazil. 410 (1976)].

TRANSVAAL. 2330 CC, Wolkberg, New Agatha Forest Station, c.5300ft., 12 iii 1981 [leaves only], *Hilliard & Burtt* 14295 (E, NU). 2529 BC/DA, Middelburg distr., farm Welverdiend, 5300ft, 20 iii 1981 [leaves only], *Hilliard & Burtt* 14420 (E, NU); *ibidem*, 26 x 1985 [flowers and fruit], *Hilliard & Burtt* 18470 (E, NU). 2530 BB, Witklip Forest Station, 8 iii 1981 [leaves only], *Hilliard & Burtt* 14258 (E, NU). 2530 BB, MacMac Pools, 23 x 1985, [mainly flowers and fruits, some young leaves], *Hilliard & Burtt* 18447 (E, NU). 2530 BA, Skurweberg, Mokobulaan Plantation 7000ft, 3 xii 1985 [leaves, flowers and fruits], *Kluge* 2647 (E). 2530 BD, above Heidelberg valley, N of Brondal-White River road, c.3800ft, 7 iii 1981 [leaves only], *Hilliard & Burtt* 14239 (E, NU). 2530 DB, Kaapsche Hoop, 24 x 1985 [flowers and fruits], *Hilliard & Burtt* 18465 (E, NU). 2531 CC, Barberton, above Lone Tree Hill, 5200ft, 29 x 1985 [flowers and fruits], *Hilliard & Burtt* 18489 (E, NU).

Annesorhiza wilmsii was included by Burtt Davy in his *Manual*, but he had seen no specimen. That is the only reference to the name traced for the 75 years of its existence: it is not included in Gibbs Russell *et al.* (*List of Species of South African plants in Mem. Bot. Surv. S. Afr.* 48, 1984). The plant itself is not uncommon, but because it is often leafless at flowering time it may have been passed as *A. flagellifolia* Burtt Davy. The two species are quite different in leaf-form: in *A. flagellifolia* the leaf has few long linear segments, in *A. wilmsii* it is much divided, the ultimate segments being short, lanceolate and tooth-like.

We collected several specimens consisting of leaves only in March 1981, and then in October 1985 we were able to collect it in flower and fruit and, fortunately, some specimens were found with leaves just beginning to unfold. The species must have quite a wide distribution in SE Transvaal and neighbouring Swaziland: we found it in several of the few localities we visited.

561. *Dasispermum* Rafinesque, Good Book 56 (1840), reimp. Scad. Gen. Omb. Pl. 56 (Amer. Midl. Nat. Repr. No. 3, 1913); Merrill, Index Rafinesquianus 179 (1949).

Type species: *D. maritimum* Raf. nom. illegit. (based on *Conium rigens* L. = *D. suffruticosum*, see below).

Syn.: *Heteroptilis* Meisner in Hook. Lond. J. Bot. 2:534 (1843); Leute in Ann. Nathist. Mus. Wien 73:88 (1969).

Rafinesque's publication of this genus is rather unsatisfactory. He took up the name from Necker (*Elementa Botanica* 1:176, 1790 as *Dasyspermum*) but considerably altered its coverage. Rafinesque wrote: '*Dasispermum* Necker diff. *Conium*, ombels radiate petals equal lanceolate involute, seeds bristly, invol. 5 ph. unequal involucels polyph. crenate—Type *D. maritimum* Raf. *Conium rigens* L. shrub. Necker has wrongly stated that sp. of *Ammi*, *Scandix* and *Tordylium* must be united to his genus, they are all peculiar genera'. Daydon Jackson (*Index Kewensis* 1:719, 1895) aptly characterized Necker's name as '*Farrago Umbelliferarum*'. Necker's uninomials for his *species naturales* are in any case not accepted as generic names under ICBN (Art. 20.4). We are simply dealing here with *Dasispermum* Rafinesque.

The identity of the species he cites, *Conium rigens* L., has been surrounded by some confusion. Ecklon & Zeyher (*Enum. Pl. Afr. Austr. Extratrop.* 341, 1837) applied it, in the form *Trachyspermum rigens* (L.) Don, to the plant currently known as *Sonderina hispida* (Thunb.) H. Wolff, while Wolff himself (in *Pflanzenr. Umbell. Apioid. Ammin.* Heft 90:96, 1927) quoted it as a doubtful synonym of *Tragiopsis didyma* (Sonder) H. Wolff. Both are certainly wrong. Linnaeus's description was based on a plant growing in Hortus Upsaliensis and there is a corresponding specimen in his herbarium (LINN 343.2) and there is another sheet from Linnaeus' herbarium, initialled HU in his own hand, in the Giseke collection now in Edinburgh. Both these sheets belong to the species currently known as *Heteroptilis suffruticosa* (Bergius) Leute.

The question is, to which species was Rafinesque referring? The phrase in his description 'seeds bristly' certainly suggests that it was *Sonderina*

hispida. However that plant is an annual, Rafinesque quotes *Conium rigens* as a shrub. *Heteroptilis* is not strictly a shrub, but it is a herb woody at the base. Furthermore, Rafinesque's description of involucre and involucre are taken almost verbatim from Linnaeus.

We must accept that Rafinesque's generic description is a bad one, but it is not completely at variance with the species he quotes as its type and it is best to allow the genus to stand in that sense.

The epithet *rigens* was probably used for this plant by Linnaeus in the sense of unbending: like many halophytes *C. rigens* has a slightly succulent brittle stem.

The genus is monotypic and the new combination using the earliest epithet follows.

562. *Dasispermum suffruticosum* (Bergius) B. L. Burt, comb. nov.

Type: Cape of Good Hope, *Grubb* (STB).

Syn.: *Conium suffruticosum* Bergius, Descr. Pl. Cap. 77 (Sept. 1767).

Conium rigens L., Mant. 56 (Oct. 1767), 2:352, 512 (1771). Type: Cult. in Hort. Ups (LINN 343.2).

Heteroptilis arenaria Meisner in Hook., Lond. J. Bot. 2:534 (1843).

Type: Cape, George, Zwartevallei, *Kraus* 1196 (n.v.).

Cnidium suffruticosum (Bergius) Cham. & Schlecht. in Linnaea 1:387 (1826); Sonder in Harvey & Sonder, Fl. Cap. 2:552 (1862).

Heteroptilis suffruticosa (Bergius) Leute in Ann. Nathist. Mus. Wien 73:89 (1969).

563. *Itasina* Rafinesque, Good Book 51 (1840), reimp. Scad. Gen. Omb. Pl. 51 (Amer. Midl. Nat. Repr. No. 3, 1913); Merrill, Index Rafinesquianus 180 (1949).

Type species: *I. filifolia* (Thunb.) Raf.

Syn.: *Thunbergiella* H. Wolff in Fedde, Rep. Sp. Nov. 18:112 (1922) & Pflanzenr. Heft 90 (Umbell. Ammineae-Carineae) 139 (1927), nom. illegit.

The genus is monotypic.

564. *Itasina filifolia* (Thunb.) Rafinesque, Good Book 51 (1840), reimp. Scad. Gen. Omb. Pl. 51 (Amer. Midl. Nat. Repr. No. 3, 1913); Merrill, Index Rafinesquianus 180 (1949).

Type: Cape, Table Mt, *Thunberg* (UPS; IDC microfiche sheet no. 7196).

Syn.: *Oenanthe filiformis* Lam., Tabl. Encycl. Bot. 2:343, tab. 203 sup., f.2 (1792); Poir. in Lam., Encycl. M  th. 4:529 (1797); Sonder in Harvey & Sonder, Fl. Cap. 2:547 (1862)—nom. illegit., non *O. filiformis* Walter, Fl. Carolin. 113 (1788). Type: Cape of Good Hope, *Sonnerat* (P-LA; IDC microfiche no. 268).

Seseli filifolium Thunb., Prodr. Pl. Cap. 51 (1794), Fl. Cap. 2:205 (1818), ed. Schultes 259 (1823).

Ruthea filiformis Koso-Poljansky in Bull. Soc. Mosc. n. s  r. 30:380 (1916). Type as for *Oenanthe filiformis* Lam.

Thunbergiella filiformis (Koso-Poljansky) H. Wolff in Fedde, Rep. Sp. Nov. 18:122 (1922), & Pflanzenr. Heft 90 (Umbell. Ammineae-Carineae): 139, 369 (1927).

Lamarck's use of the epithet *filiformis* in *Oenanthe* created an illegitimate later homonym. However, when Koso-Poljansky transferred the species to *Ruthea* his use of the same epithet was legitimate (ICBN Art. 72) and provides the valid basionym for H. Wolff's combination in *Thunbergiella*. However, it takes priority only from 1916, and Thunberg's epithet from *Seseli filifolium* must be adopted.

565. *Peucedanum zeyheri* Sonder in Harvey & Sonder, Fl. Cap. 2:559 (1862).

Type: Cape, Uitenhage div., Coegakopje near Zwartkopsrivier, *Ecklon & Zeyher* 2245 (S).

Syn.: *Cynorhiza montana* Ecklon & Zeyher, Enum. Pl. Afr. Austr. 352 (1837)—non *Peucedanum montanum* Koch (1825).

CAPE. Jansenville distr., farm Gannahoeck, \pm 10km N of Wolwefontein, 33°12'S 24°51' E, 5 xi 1985, *Hoffman* 1050 (E); *ibidem*, 6 xii 1985, *Hoffman* 1051 (E); *ibidem*, 10 i 1986, *Hoffman* 1052 (E).

The large herbaceous Umbelliferae of Cape Province have been little collected in recent years and it is therefore worth recording the above specimens of *Peucedanum zeyheri*, for which I am greatly indebted to Mr M. T. Hoffman, a research student now at the University of Cape Town. They may well represent the first collections of the species since the time of Ecklon & Zeyher and of Drège.

Mr Hoffman was able to visit the site on several occasions during the growing season and his specimens cover various stages. In November the plants were only in leaf and he recorded that there was a simple thick taproot, more than 8 inches long and 1½–2 inches thick. In December the leaves were already withered and dead; not many flowers were seen. In January he recorded 'very few fruits seen: leaves dead: plant up to 1 m'. The plants were growing in noorsveld (succulent bushveld) and were confined to clumps of *Euphorbia caerulescens*.