

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

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ABSTRACT. Thirty-six species are annotated. Four items concern *Rhodohypoxis* (Amaryllidaceae): a new species is described, *R. milloides* supersedes *R. palustris*, *R. platypetala* is accepted as a valid name (not necessarily a good species) and *R. rubella* var. *thodiana* is raised to specific rank. *Heliotropium elongatum* (Boraginaceae), a S American plant already known as a weed in Java, is recorded from Malawi. The remaining species belong to Compositae. *Athanasia* and *Berkheya* each receive a new species; *Lopholaena* is increased by the transfer of *Senecio trianthemos*. There are 5 new species of *Helichrysum*, *H. aureum* and *H. tenax* receive new varieties and *H. ericifolium* is renamed *H. asperum*. In *Senecio* there are 12 new species, and annotations on *S. burchellii*, *S. caudatus*, *S. macrocephalus*, *S. polyodon* (incl. *S. breyeri*, *S. metallicorum*, *S. versicolor*), *S. purpureus* and *S. speciosus* (incl. *S. concolor*). The S American *Hypochoeris microcephala* var. *alba* is recorded for Natal for the first time, and the "S African" *Taraxacum fulvipilis* is reduced to *T. bessarabicum*.

AMARYLLIDACEAE (incl. Hypoxidaceae)

155-158 *Rhodohypoxis* Nel in Bot. Jahrb. 51:257 (1914).

A revision of this genus is in hand, but further field studies are necessary before final decisions can be taken. However it is desirable to make certain names available for use meantime. We have to thank Prof. T. Eckardt for the loan of the material studied by Nel from the Berlin herbarium, and Prof. Webb for the type of *R. milloides* from Trinity College, Dublin.

155. *Rhodohypoxis deflexa* Hilliard & Burtt, *species nova*, *R. milloidei* (Baker) Hilliard & Burtt affinis, sed planta semper minor floribus minoribus (c. 6-10 mm e basi ovarii ad apicem tepali in *R. deflexa*, 12-25 mm in *R. milloidei*), ovario glabro vel subglabro (haud albo-piloso), pedicellis sub fructibus deflexis (haud erectis) capsulis in superficie terrae jacentibus.

Tuber ovoideum, c. 4-8 mm diam. *Folia* c. 5-9, patentia, ad 6.5 × 0.5 cm, lineari-lanceolata, ad apices sensim attenuata, valde carinata et leviter plicata, utrinque glabra vel pilis paucis caespitosis tenuibus praecipue ad margines praedita; bases foliorum membranacei incolores, glabri, vaginantes, inferne tubulosi, pseudocaulem subterraneum ad 1.5 cm longum formantes. *Pedicelli* ad 6, in axillis foliorum solitarii, c. 1.5-2 cm longi, dorso-ventraliter paulo compressi, glabri vel parcissime pilosi. *Flores* solitarii, raro bini; tubus perigonii c. 1.5 mm longus, apice c. 2 mm diam.; tepala exteriora oblongo-lanceolata, 3.5-6.5 × 1.75-2 mm; interiora paulo minora, ad basin magis angustata et illic inflexa, vivide roseo-rubra vel pallide rosea, interdum alba; et ovarium et perigonium glabrum vel pilis paucis tenuibus caespitosis patentibus praeditum. *Stamina* biseriata, 3 inferiora tepalis interioribus opposita in medio tubo inserta, 3 superiora tepalis exterioribus opposita in ore tubi inserta; filamenta minima; antherae thecae 0.75-1.25 mm longae,

* Continued from Notes R.B.G. Edinb. 32:387 (1973).

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apicibus acutis. *Ovarium* 2 mm longum, campanulatum, triloculare, ovulis in loculo quoque 3-7; stylus robustus, c. 0.5 mm longus; stigma cristis 3 carnosus papillois. *Capsula* ambitu elliptica, c. 5×3.5 mm, tenuiter coriacea, ad apicem circumscissilis. *Semina* c. 1.5 mm longa, ellipsoidea, leviter angulata, testa nigra nitente minute mamillata, micropyle prominente.

CAPE. Barkly East distr., Rhodes to Naude's Nek, c. 2600 m, 22 ii 1971, *Hilliard & Burtt* 6705 (E holo.; K, NU, PRE iso.).

LESOTHO. Summit of Langalibalele pass, c. 2800 m, 20 xi 1973, *Wright* 1585 (E, NU); Sani, near the river, 2800 m, 17 ii 1973, leg. *M. Grice* (*Hilliard* 5320, NU); Sani, 2800 m, 18 ii 1973, *Hilliard* 5358 (E, K, NU); Sani, main vlel towards Hodgson's Peak, 2800 m, 30 xii 1973, *Hilliard* 5386 (E, NU); Sani, marsh supplying water to Border Post, 2800 m, 1 i 1974, *Hilliard* 5430 (E, NU); Malhai area, 3200 m, 30 xii 1969, *M. M. Cole* 13 (PRE); Makhapung Valley, 3050 m, 19 i 1955, *Jacot-Guillarmod* 2243 (PRE); Pela Tseou river, 3100 m, 4 ii 1954, *Jacot-Guillarmod* 2058 (PRE); between Matsuba and Khube rivers, 2500 m, 13 i 1955, *Coetzee* 540 (PRE); Butha Buthe, valley no. 1, 2895 m, 2 ii 1954, *Coetzee* 396 (NBG).

156. *Rhodohypoxis milloides* (Baker) Hilliard & Burtt, comb. nov.

Lectotype: Natal, Dargle, *Mrs Fannin* (TCD!).

Syn.: *Hypoxis milloides* Baker in Journ. Linn. Soc. Bot. 17:105 (1878) et in Thiselton-Dyer, Fl. Cap. 6:179 (1896).

Rhodohypoxis baurii (Baker) Nel var. *milloides* (Baker) Nel in Bot. Jahrb. 51:300 (1914).

Rhodohypoxis palustris Killick in Bothalia 7:480 (1961) Type: Natal, Cathedral Peak Research Station, *Killick* 1602 (PRE! K!).

R. milloides is a variable species, particularly in leaf-width. The type of the synonym *R. palustris* is narrow-leaved, as are two of Baker's syntypes (those collected by Krauss and by Sutherland) of *R. milloides*. Mrs Fannin's specimen is broad-leaved and is chosen as lectotype: thus the types of the two valid epithets lie at opposite ends of the range of variation of the whole species.

157. *Rhodohypoxis platypetala* (Baker) C. H. Grey, Hardy Bulbs 2:98 (1938).
Type: Natal, Dargle Farm, *Mrs Fannin*.

Syn.: *Hypoxis platypetala* Baker in Journ. Linn. Soc. 17:105 (1878).

Hypoxis baurii Baker var. *platypetala* (Baker) Baker in Thiselton-Dyer, Fl. Cap. 6:179 (1896).

Rhodohypoxis baurii (Baker) Nel var. *platypetala* (Baker) Nel in Bot. Jahrb. 51:300 (1914).

Rhodohypoxis baurii forma *platypetala* (Baker) Milne-Redhead in Bot. Mag. t. 9412 (1935).

The purpose of this entry is merely to draw attention to the fact that this combination (not yet in *Index Kewensis*) is available; no taxonomic judgment is implied. Col. Grey referred to the plant as *R. platypetala* (Baker) Nel, and to *Rhodohypoxis* Nel as "recently segregated from *Hypoxis*". The basionym *Hypoxis platypetala* is not cited, but the indirect reference is clear. Nel used the epithet only in varietal rank.

158. *Rhodohypoxis thodiana* (Nel) Hilliard & Burt, comb. nov.

Type: [Natal-Lesotho border] Bushman's River Pass, 3200 m, *Thode* 87 (B!); *Thode*, s.n. (STE 8379! probably iso.).

Syn.: *Rhodohypoxis rubella* (Baker) Nel var. *thodiana* Nel in Bot. Jahrb. 51:300 (1914).

Nel had only a single specimen of this plant. Further material has been collected from the same area by O. West (no. 1741, NH) and F. B. Wright (no. 1315, 1582, 1584, 1607, 1609, E, NU) and shows clearly that a distinct species is represented. The leaves of *R. thodiana* are flat and hairy with a very strongly marked intra-marginal vein; a well-developed pedicel always carries the ovaries above ground and the ovary beak is only about as long as the hairy ovary. *R. rubella* has subterete, glabrous, or nearly glabrous, leaves, a glabrous subterranean ovary and fruit and a long ovary beak which carries the perianth above the soil surface.

BORAGINACEAE

159. *Heliotropium elongatum* (Lehm.) I. M. Johnston in Contrib. Gray Herb. 81:18 (1928); van Steenis in Bull. Jard. Bot. Buitenzorg, ser. 3, 13:286-287 (1934).

Type: Brasil, in locis arenosis, *sine coll.*

Syn.: *Tiaridium elongatum* Lehm., Pl. Fam. Asperif. 1:16 (1818), et Icon.

Rar. Pl. Fam. Asperif. 10, t.6 (1821); Roem. & Schult., Syst.

Veg. 4:736 (1819); Chamisso in Linnaea 4:452 (1829).

Heliotropium elongatum (Lehm.) DC., Prodr. 9:555 (1845); Fresenius in Mart., Fl. Bras. 8:47, t.10 fig. 8 (1857).

["*Heliotropium elongatum* Willd." Gürke in Engl. & Prantl, Nat. Pflanzenfam. 4 3A: 96, fig. 39 (1893), *nomen nudum*.]

Heliotropium decipiens van Steenis in De Trop. Natuur 22:15-16, fig. 1 (1933) et op. cit. 23:57, fig. 1 (1934).

MALAWI. N bank of Shire R. on road to Dedza, coarse bushy herb to 3 ft, flower pale mauve with yellow eye, 4 i 1967, *Hilliard & Burt* 4160 (E, NU).

There is some doubt as to the correct authority for the transfer of *Tiaridium elongatum* to *Heliotropium*. The position is complicated by the fact that the combination *Heliotropium elongatum* was first used as a manuscript name in Willdenow's herbarium. Roemer & Schultes attribute this use to Hoffmannsegg, and I. M. Johnston cited the species as "*H. elongatum* Hoffm. ex R. & S.", but the name was only quoted in synonymy under *Tiaridium*. *Index Kewensis* gives "*H. elongatum* Willd. ex Chamisso", but this is invalid for the same reason. Gilg simply wrote *Heliotropium elongatum* Willd. without any direct reference to *Tiaridium elongatum* Lehm. It is easy enough to find out what Gilg meant, but one senses that nomenclaturists are becoming more demanding about the clarity of the indirect citation of basionyms. On the whole it has seemed best to attribute the combination to I. M. Johnston, the earliest author we have traced so far who set it out clearly and unequivocally.

This appears to be the first record of this weed from Tropical Africa. A quick search through the Kew herbarium failed to reveal additional speci-

mens. Van Steenis reported that it had clearly been established in Java at least since 1893; which is of interest as Ivan Johnston told him that he had searched without success for Old World specimens of *H. elongatum* in European herbaria.

H. elongatum is similar to *H. indicum* L. in general facies, but is easily distinguished by the fruits. The carpels (pairs of nutlets) are less strongly divergent and when cut across each nutlet is seen to consist of a single seed bearing cavity. In *H. indicum* each nutlet contains one seed bearing cavity and one larger empty cavity. It is the four domed empty cavities that are conspicuous at the centre of the widely divergent fruiting carpels of *H. indicum*. The difference in internal fruit structure is so marked that it is scarcely surprising that Endlicher (Gen. Pl. 646, 1839) placed *H. elongatum* in *Tiaridium* a *Hieranthemum* and *H. indicum* in *Tiaridium* b *Eutiaridium*. No floral differences between these two species have been found.

I. M. Johnston placed *H. elongatum* and *H. indicum* as the only two species of *Heliotropium* sect. *Tiaridium*. Although there is much to be said for associating these two species, it must be noted that, because of the single cavity in each nutlet, *H. elongatum* does not strictly meet Johnston's definition of sect. *Tiaridium* nor will it run there in his key.

COMPOSITAE

160. *Athanasia grandiceps* Hilliard & Burt species nova nulli arcte affinis. Fortasse ex affinitate *A. woodii* (Thellung) Hilliard a qua capitulis solitariis permagnis (15–25 mm diam.) depresso-globosis (haud turbinato-campanulatis 7 mm longis numerosis in paniculam corymbosam compactis) facile distinguuntur.

Suffrutex aromaticus; caules c. 0.5–1.5 m alti, basi c. 1 cm diam., solitarii vel saepius plures caespitosi, inferne simplices, superne simplices vel parce ramosi, capitula in surculis longis (15–25 cm) foliosis sursum pedunculoideis et remote bracteatis apicibus inflatis et fistulosis gerentes, omnes laxe albo-lanati, pilis in pedunculis parciorebus, dense foliati, foliis primariis surculis axillaribus nanis subtendentibus. *Folia* primaria usque ad 5 cm longa, bipinnatisecta sursum pinnatisecta demum triloba, lobis ad 15 mm longis, lineari-teretibus, apiculatis, distantibus, basi lato semiamplexicauli, marginibus lobis paucis parvis, glabra vel pilis longis paucis praedita; folia secundaria pinnatisecta vel triloba pilis parvis longis albo-lanatis. *Capitula* depresso-globosa, 15–25 mm diam., multiflora, ramos terminantia. *Involucri* bractae c. 6-seriatae, exteriores interioribus breviores, lanceolatae, acutae, carina dura elevata, straminea, apicibus viridibus, extimae tenuiter lanatae ceterae glabrae, omnes sacculis oleiferis elongatis subepidermalibus praeditae. *Receptaculum* planum, epaleatum. *Corolla* 4 mm longa, glandulosa, flava; tubus 1.5 mm, cylindricus, supra abrupte campanulatus, lobis 5, 1.5 mm longis deltoideis apicibus dorso incrassatis. *Achaenia* 3–4 mm longa, cylindrica, c. 10-costata, costis acute angulatis, annulo leviter incrassato et crenato coronata. *Pappus* nullus.

NATAL. Underberg distr., Drakensberg Garden Forest Reserve, upper waters of Umzimkulu river, 3 xi 1973, Hilliard & Burt 7029 (NU holo.; E, K, PRE, S, MO iso.); *ibidem*, 12 iv 1974, Hilliard 5494 (E, K, NU).

It is extraordinary that this large and striking plant should hitherto have been overlooked. It is a common and conspicuous constituent of the rough grass and scrub communities in the narrow, boulder-strewn valley of the upper reaches of the Umzimkulu river, an easily accessible part of the Natal Drakensberg near Underberg. However, we have searched for it without success along the Ngwangwane river at Bushman's Nek and the upper Polela, Cobham Forest Reserve, where the valleys seem too wide and too grassy. We saw it first in midwinter, and went back to collect in spring (early November) when the first flowers in the head were just opening; we are indebted to Mr Ken Carter, Forest Officer at Drakensberg Garden, for collecting ripe seed in March. By mid-April the heads were quite spent, the upper part of each main stem together with the flowering peduncles already brown and dry, but some of the axillary shoots at about midheight were already growing out, fresh and green.

The exceptionally large heads on long nearly nude peduncles are unmatched in *Athanasia*, but recall those of *Pentzia sphaerocephala* DC. or *Schistostephium griseum* Harv., both distinctive in their genera for these very characters. Under the current delimitation of *Pentzia* and *Athanasia* based on the presence or absence of receptacular paleae, our plant would be placed in *Pentzia*, but we have shown elsewhere (in Notes R.B.G. Edinb. 32:328-29, 1973) that achene and pappus characters lead to a sounder classification. Our plant belongs in *Athanasia* sect. *Hymenolepis* or perhaps warrants segregation, together with *A. woodii*, in a separate section.

Seed of *A. grandiceps* has germinated at Edinburgh and has blunt narrowly oblong cotyledons 10×3 mm; the first pair of leaves are simple, linear, the second are simply pinnate, after which the normal bipinnate form is developed.

161. *Berkheya pannosa* Hilliard, species nova formis aliis *B. rhaponticae* (DC.) Hutch. & Burt Davy affinis sed pappi squamis ad 5 mm longis setoso-acuminatis (haud 1 mm longis acutis vel subacutis) facile distinguatur.

Herba perennis caudice robusto lignoso; caulis florifer solitarius, usque ad 20 cm altus, simplex vel semel furcatus, albo-pannosus. *Folia* usque ad 7×5 cm, pauca, plerumque ad basin caulis aggregata, late elliptica vel subrotundata, apice obtuso vel rotundato, basi abrupte angustata petioli-formi, caulina multo minora, oblonga vel subspatulata, basi lata, pauca; margines omnium plus minusve integrae vel sinuato-dentatae, setoso-spinoscentes; laminae supra primum araneosae, demum glabrae, infra albo-pannosae. *Capitula* radiata, terminalia, solitaria vel bina, c. 5 cm diam. (radiis inclusis). *Involucri* bractaeae usque ad 12×3 mm, exteriores oblongae vel lingulatae, interiores lineares, spina apicali, marginibus setoso-spinoscentibus, exteriores saltem dorso albo-pannosae. *Flores* et radii et disci flavi. *Ovaria* pilosa (achaeia non visa). *Pappi* squamae ad 5 mm longae, lineari-lanceolatae, acuminatae, aliae longe setoso-acuminatae.

NATAL. Alfred distr., Ngeli slopes, c. 1525 m, 15 ix 1963, Hilliard 1791 (NU holo.; E iso.); *ibidem*, 23 ix 1971, Strey & Nicholson 10497 (E, NH, NU). CAPE. Mt. Currie, 1980 m, 25 xi 1930, Goossens 358 (PRE).

B. pannosa grows in grassland, flowering in spring when the grass cover has been burnt off. We saw hundreds on Ngeli Mt, the bright yellow heads

and white-backed leaves a pretty sight in the short new grass. It can be confused with some of the dwarf montane forms of *B. rhapontica*, but is easily distinguished by its very different pappus scales. Also, the leaves are smooth above, while they are nearly always harshly pubescent in *B. rhapontica*. The scanty herbarium records of *B. pannosa* point the need for botanical collecting on the mountains in southern Natal and the neighbouring Transkei. It has recently (Jan. 1975) been found in plenty in the Garden Castle Nature Reserve (Hilliard & Burt 1975).

162. *Helichrysum amplexens* Hilliard, species nova *H. diffusum* DC. affinis sed habitu fruticoso et foliis pandurato-auriculatis differt.

Perennis, laxe ramosus, basi lignosus, caulibus primariis ad 3.5 mm diam., albo-lanatus, dense foliatus, foliis inferioribus marcescentibus; ramuli floriferi foliis emortuis superioribus axillares, usque ad 40 cm longi, tenues, apices versus tantum in paniculas corymbosas latissimas ramosi, remote foliati. *Folia* caulina c. 3–8 × 1–3 cm, panduriformia, apice subobtusum vel subacutum mucronato, basi auriculato amplexicauli, supra tenuiter araneosa, subtus albo-pannosa; ea ramorum floriferum usque ad 28 × 12 mm oblonga vel lanceolata, apice obtusum vel acutum mucronato, basi cordatum, uti caulina vestita. *Capitula* late campanulata, c. 6–8 mm longa, 10–13 mm diam. bracteis radiantibus inclusis. *Involucrum* bractearum 7-seriatarum, imbricarum, ovatarum, subcutarum, exteriores interioribus discum c. 2–3 mm superantibus breviores, basibus lanatis, apicibus opacis albis. *Receptaculum* alveolatum. *Flores* c. 100 omnes hermaphroditi; corolla 2.5–3 mm longa, inferne cylindrica, superne campanulata, lutea. *Ovarium* 1 mm longum, epapillosum. *Pappus* e setis 12–15 delicatulis scabridis 3 mm longis, apicibus subplumosis, basi inter se haud cohaerentibus. *Achaenia* ambitu elliptica, 1.5 × 0.75 mm, brunnea, epapillosa, obscure 4-costata (ex Esterhuysen 26100).

NATAL. Bergville distr., Cathedral Peak area, Cleft Peak, c. 2800 m, stony grassland, 28 ii 1963, *B. Nordenstam* 2127 (NU holo.): Cathkin area, ledges, S base of Monk's Cowl at base of cliffs, 2700 m, July 1956, *Esterhuysen* 26100 (BOL, PRE) (heads with a few ripe achenes); Cathkin Peak, in shelter of undercut cliffs on S slopes, 2400 m, July 1952, *Esterhuysen* 20257 (BOL, PRE); Cathedral Peak area, at foot of cliff on steep rocky S slopes, 2400 m, July 1954, *Esterhuysen* 23000 (BOL).

Although the foliage of *H. amplexens* at once recalls that of *H. panduratum* O. Hoffm., and the heads are not dissimilar in general appearance, these species differ in details of the receptacle, corolla shape and pappus structure. The relationship of *H. amplexens* possibly more truly lies with *H. diffusum*, a SW Cape species with, oddly, one record from southernmost Natal.

It is difficult to deduce the precise habit of the plant from the sheets, and the collectors gave no notes. The type specimen came from stony grassland, is robust, and appears to be a branchlet broken from a shrubby perennial herb. The three Esterhuysen specimens came from the ledges or overhangs of cliffs, and are much more dwarf with smaller leaves and only 2–3 heads at the tip of each peduncle. The main stems here appear to be more or less prostrate (presumably erect in the type) and are sparingly branched. All the stems are woody and brittle, bare below, with only the top 3–5 cm (8 in the type

specimen) bearing fresh leaves, with the old withered leaves of the previous season's growth below them. The long, delicate, sparingly leafy flowering shoots are borne in the upper axils of these dead leaves. Miss Esterhuysen tells me the plants form small tangled clumps, the stems erect or ascending.

163. *Helichrysum asperum* (Thunb.) Hilliard & Burt, comb. nov.

Type: Cape of Good Hope, *Thunberg* (20961—UPS, IDC microfiche!).

Syn.: *Gnaphalium ericoides* L., Pl. Afr. Rar. 19 (1760) et Sp. Pl. ed. 2, 1193 (1763)—non *Helichrysum ericoides* (Lam.) Pers. (1805). Type: ? LINN 989. 17.

Stoebe aspera Thunb., Prodr. Pl. Cap. 170 (1800), et Fl. Cap. 728 (1823).

Seriphium asperum (Thunb.) Persoon, Syn. Pl. 2:501 (1807).

Helichrysum ericifolium Less., Syn. Comp. 314 (1832); DC., Prodr. 6:172 (1838); Harv. in Harv. & Sond., Fl. Cap. 3:217 (1865).

Type as for *Gnaphalium ericoides* L.

When Lessing re-named *Gnaphalium ericoides* L. as *Helichrysum ericifolium* Less., he quoted, but otherwise ignored, the synonym *Stoebe aspera* Thunb. His new name was therefore illegitimate. The combination *H. asperum* appears in Index Kewensis in the form "*H. asperum* DC., Prodr. 6:264 sphalm. = *ericifolium*". This refers to an entry at the end of the genus *Seriphium* where De Candolle wrote *S. asperum* Pers. = *Helichrysum asperum*. At the end of *Stoebe* he wrote, *Stoebe aspera* Thunb. = *Helichrysum ericifolium*, and in the account of *Helichrysum* the combination *H. asperum* does not appear. It clearly was not firmly accepted by De Candolle and cannot be attributed to him. It has not been used in the interval and must now be properly established.

This is a polymorphic species with a number of synonyms, but they are all much later and have no effect on the nomenclature given above. There are also a number of varietal names, but it seems unwise to transfer any of these until the taxonomy is more clearly understood.

164. *Helichrysum aureum* (Houtt.) Merr. in Journ. Arn. Arb. 19:372 (1938).

Type: Houttyn, Nat. Hist. 10 ed. 2:590, t. 67 fig. 3 (1779), based on a specimen from Thunberg.

Syn.: *Gnaphalium aureum* Houtt., Nat. Hist. 10 ed. 2:590 t. 67 fig. 3 (1779). *Xeranthemum fulgidum* Linn. f., Suppl. 365 (1781). Type: Cape of Good Hope, *Thunberg* (LINN 990.23).

Helichrysum fulgidum (Linn. f.) Willd., Sp. Pl. 3:1904 (1804); Harv. in Harv. & Sond., Fl. Cap. 3:232 (1865).

Gnaphalium fulgidum (Linn. f.) Zuccagni in Roem., Collect. 153 (1809).

Merrill established that the plant known for so long as *Helichrysum fulgidum* must bear the name *H. aureum*. It is a highly variable and wide-ranging species. Some of the varietal names established by De Candolle under *H. fulgidum* can be usefully transferred to *H. aureum*, and two other varieties deserve recognition.

var. *candidum* Hilliard, **var. nov.**, a var. *monocephalo* (DC.) Hilliard bracteis eximie candidis tantum differt.

Type: Swaziland, near Mbabane, Mhlambanyati, 1968, Cook s.n. (NU, holo.) mixed with var. *monocephalum*.

Var. *candidum* is distinguished from var. *monocephalum* merely by its snow-white involucre bracts, and the two varieties may grow together. Var. *candidum* is recorded only from Paulpietersburg and Utrecht districts in Natal, neighbouring Piet Retief district in the Transvaal, and Pigg's Peak and Mbabane districts in Swaziland.

This is the plant that Moeser (in Bot. Jahrb. 44:336, 1910) confused with *H. elegantissimum* DC. in citing Galpin 545 from Devil's Bridge, Swaziland.

var. *monocephalum* (DC.) Hilliard, **comb. nov.**

Type: Cape, Wittbergen, 7-8000 ped., Drège 866 (G-DC!).

Syn.: *H. fulgidum* var. *monocephalum* DC., Prodr. 6:188 (1838); Harv. in Harv. & Sond., Fl. Cap. 3:232 (1865).

H. fulgidum var. *nanum* DC., Prodr., 6:188 (1838); Harv. in Harv. & Sond., Fl. Cap. 3:232 (1865). Type: Cape, Wittbergen, Drège 3738 (G-DC).

Var. *monocephalum* can be distinguished from var. *aureum* by its smaller heads, mostly 8-15 mm long and up to 32 mm across the radiating involucre bracts, not 15-20 mm long and 35-45 mm across. It ranges widely from the eastern Cape through Natal to the Transvaal highveld and eastern mountains, the eastern, elevated, part of Rhodesia, and the Angolan highlands. There is considerable variation in stature, head size, and indumentum on both stems and leaves, and it seems impossible to maintain De Candolle's var. *nanum*, a dwarfed plant with very woolly stem and leaves.

var. *scopulosum* (M. D. Henderson) Hilliard, **comb. nov.**

Type: Natal, Bergville distr., Cathedral Peak Forest Research Station, 7400 ft, Killick 1554 (K!).

Syn.: *Helichrysum scopulosum* M. D. Henderson in Bothalia 6:423 (1954).

The cliff-dwelling, high altitude plant described as *H. scopulosum* is indistinguishable from some specimens of *H. aureum* from near the sea in Natal. Because of its special habitat preference allied to its geographical isolation, it is accepted here as a variety of *H. aureum*.

var. *serotinum* Hilliard, **var. nov.** a var. *aureo* et caulibus et foliis minus lanatis, foliis etiam vix lanato-marginatis, tempore florendi serotino recedit.

Type: Natal, Mpendhle distr., 'Storm Heights', c. 2130 m, grassveld, S aspect, 9 i 1968 F. B. Wright 375 (NU holo.; E iso.).

Var. *serotinum* has glandular-setose stems and leaves with only traces of wool sometimes present on the margins and veins of the radical leaves, and on the upper stem, in contrast to typical *H. aureum* with woolly stems and woolly-margined leaves. Its habit of flowering in summer and autumn sets it apart from the other, spring-flowering, varieties of *H. aureum*, which may grow with it. It ranges along the Drakensberg from about Barkly Pass in the eastern Cape to Cathedral Peak in Bergville district, Natal, between c. 2000 and 2600 m above sea level.

165. *Helichrysum heterolasium* Hilliard, species nova *H. cooperi* Harv. affinis sed foliis radicalibus griseo-albo-lanatis basi caulis floriferi persistentibus (sed saepe marcescentibus), capitulis majoribus, plerumque 3–4 cm (haud c. 1.5–2.5 cm) diametro bracteis radiantibus inclusis.

Herba biennis, in vivo aromatica; caules floriferi ad 80 cm alti, ad inflorescentiam simplices vel basi parce furcati, glanduloso-pubescentes et tenuiter albo-lanati praecipue ad apices ramorum inflorescentiae. *Folia* radicalia rosulata, secundo anno marcescentia, persistentia, ad 10×3.5 cm, elliptica, triente inferiore ad basin latam amplexicaulem angustata, apice obtuso vel subacuto mucronato, utrinque pilis longis et brevibus glandulosis necnon tenuiter griseo-albo-lanata; caulina ad 9×2.5 cm, sursum decrescentia, elliptica vel superne lanceolata, apice nunc obtuso nunc acuto nunc acuminato, basi cordato-amplexicauli, marginibus glanduloso-setosis et albo-lanatis, utrinque glanduloso-setosa infima tantum etiam lanata. *Capitula* heterogama, depresso-globosa, plerumque 30–40 mm diametro bracteis radiantibus inclusis, 2–12 in pedunculis foliatis ad 12 cm longis corymbose disposita. *Involucris* bractearum c. 9-seriatae, gradatae, imbricatae, flores multo superantes, radiantes, nitidae, interiores vivide luteae, exteriores luteolae aureo-brunneo-suffusae. *Receptaculum* fere laeve. *Flores* 786–1909, 71–261 feminei, 646–1648 hermaphroditi, lutei. *Achaenia* 1 mm longa, ellipsoidea, obscure costata, epipilosa, minute mamillata. *Pappi* setae numerosae, corollam aequantes, apicibus subplumosis, basibus non cohaerentibus.

NATAL. Estcourt distr., Giant's Castle Game Reserve, Langalibalele Pass, c. 2680 m, 11 i 1972, *Wright* 1247 (NU holo.; E, K, PRE, S iso.); Giant's Castle Game Reserve, Bannerman Pass, c. 2400 m, 28 iv 1968, *Hilliard* 4827 (E, K, NU). Impendhle distr., catchment area of southern branch of Loteni river, c. 2590 m, 24 iii 1969, *Wright* 846 (E, NU); left branch of Loteni river looking downstream, c. 2380 m, 14 iv 1969, *Wright* 867 (E, NU); below summit of Hlatimba Pass, c. 2800 m, 2 iii 1971, *Wright* 1146 (E, MO, NU). Underberg distr., Sani Pass, ii 1972, *Grice* s.n. (NU); *ibidem*, c. 2750 m, 18 ii 1973, *Hilliard* 5333 (E, K, S, PRE).

H. heterolasium grows on steep rocky slopes, in gullies and in narrow, boulder-strewn valleys high in the Natal Drakensberg, where it has so far been recorded only in the southern part between Giant's Castle and Drakensberg Garden. Its large heads and greyish-white woolly persistent radical leaves at once distinguish it from the allied *H. cooperi*, common in the same area. The specific epithet refers to the striking difference between the indumentum of radical and cauline leaves.

166. *Helichrysum inornatum* Hilliard & Burt, species nova *H. pallido* DC. affinis sed capitulis minoribus 4×2.5 mm, 9–13-floris, corolla 2.75 mm longa (non $6-7 \times 6-7$ mm 18–30-floris, corolla c. 4 mm longa), bracteis magis hyalinis et pallide aureo-brunneis, foliis tenuioribus angustioribus differt.

Herba perennis caule florifero solitario albo-lanato usque c. 50 cm alto. *Folia* radicalia lineari-lanceolata, usque ad 15×1 cm, tenuia, apice acuminato, basi sensim angustato plano petioliformi, supra scabridula saepe levissime araneosa, subtus tenuiter griseo-albo-pannosa, triplinervia, venulis transversis non manifestis; caulina radicalibus similia sed sursum mox sessilia, basi lato, amplexicentia, sursum in bractearum distantes abrupte

transeuntia. *Capitula* homogama, anguste campanulata, c. 4×2.5 mm, numerosa, dense cymosa, iterum aggregata in corymbum planum caulem terminantem. *Involucrum* basi lanatum; bracteae c. 4-seriatae, exteriores interioribus breviores, laxe imbricatae, obtusae, hyalinae, pallide aureo-brunneae, floribus aequales, haud radiantes. *Receptaculi* fimbriellae ovario paulo longiores. *Flores* 9–13, corollis sensim sursum ampliatis, 2.75 mm. *Ovarium* 0.5 mm epapillosum. *Pappi* setae numerosae, scabridae, basibus leviter cohaerentibus.

NATAL. Mpendhle distr., "Whiterocks", c. 2100 m, 9 i 1968, *Wright* 378 (E, K, NU). Alfred distr., Ngeli Mt., SE end, c. 1800 m, 2 i 1969, *Hilliard & Burt* 5766 (NU holo.; E, K, S iso.). Underberg distr., Drakensberg Garden Forest Reserve, c. 2000 m, 4 xi 1973, *Hilliard & Burt* 7053 (E, NU).

Grows socially in damp grassland.

167. *Helichrysum rudera* Hilliard & Burt, species nova *H. cooperi* Harv. affinis sed ramis inflorescentiae acute ascendentibus (haud late patentibus) persistenter albo-lanatis deorsum ad primam caulis furcam (haud glanduloso-setosis tantum, necnon interdum juventute araneosis) differt. *H. rudera* vere, *H. cooperi* aestate floret.

Herba biennis, in vivo aromatica, c. 1 m usque alta; caulis robustus basi ad 1 cm diam., infra inflorescentiam simplex, glanduloso-setosus, parte superiore et ramis inflorescentiae etiam tenuiter albo-lanatus, omnino foliatus. *Folia* radicalia tempore florendi carentia; caulina ad 18×6.5 cm, sursum decrescentia, elliptica vel lanceolato-elliptica, suprema lanceolata, apice acuto vel acuminato apiculato, basi lata cordato-amplexicaulia, supremis exceptis saepe in alas nunc breves nunc longas decurrentia, utrinque glanduloso-setosa, marginibus saepe insuper albo-lanata. *Capitula* heterogama, depressoglobosa, c. (22–)25–32 mm diam. bracteis radiantibus inclusis, numerosa in paniculam corymbosam ramis oblique ascendentibus disposita. *Involucrum* bracteae c. 9-seriatae, gradatae, imbricatae, flores multo superantes, radiantes, nitidae, vivide luteae. *Receptaculum* alveolatum. *Flores* 811–1053, 121–226 feminei, 681–754 hermaphroditi, lutei. *Achaenia* c. 1 mm longa, ellipsoidea, obscure costata, epapillosa, minute mamillata. *Pappi* setae numerosae, corollam aequantes, apicibus subplumosis, basibus haud cohaerentibus.

NATAL. Eshowe distr., Eshowe, 9 ix 1949, *Lawn* 1072 (NH). Mtunzini distr., 20 miles from Ginginhlovu, 22 ix 1963, *Getliffe* 116 (NU). Durban distr., Isipingo, 11 ix 1913, *Wood* 12491 (NU). Umvoti distr., Muden, 1 xi 1936, *Wylie* s.n. (NH). Pinetown distr., Gillitts, ix 1916, *Lansdell* s.n. (NH); Chelmsford Park, 600 m, 6 x 1963, *Hilliard* 1851 (NU); Hillcrest, xii 1967, *Hilliard* 4718 (E, NU); Everton, Eskotene, 610 m, 12 xi 1973, *Hilliard & Burt* 7216 (NU holo.; E, K, PRE iso.). Pietermaritzburg distr., Hilton College Estate, 29 xi 1968, *Khan* s.n. (NU). Port Shepstone distr., Oribi Gorge, c. 300 m, 26 x 1963, *Hilliard* 1874 (NU); Wichmann's Farm, 22 ix 1966, *Strey* 6934 (NH, NU); St. Michaels-on-Sea, 8 x 1963, *Nicholson* 71 (NH).

It seems remarkable that this plant, so prolific and so common a weed in certain places along roadsides and in abandoned fields, should be nameless. Taking Durban on the coast as a focal point, it is common along the roads

north to the Tugela and fades out just north of Mtunzini; southwards it ranges to about the Umzimkulu river; inland it is plentiful as far as Pietermaritzburg and on the escarpment above the town, then dwindles away between Balgowan and Curry's Post. It is also plentiful along the road to Richmond and a few miles beyond on the main Cape road, then occurs sporadically as far as the heights just south of the Umkomaas river.

It flowers in spring (September to November) and in areas where its distribution overlaps with that of its close ally *H. cooperi* it has usually withered and died by the time that species begins flowering in December. *H. cooperi* lacks the strong weed propensities of *H. ruderdale* and is more a plant of rough grassland on forest margins, occurring mainly at higher altitudes than *H. ruderdale* and with a much wider geographical range (roughly eastern Cape north-eastwards to the eastern Transvaal).

Familiarity with the two species in the field alerted us to the striking difference between them in the carriage of the inflorescence branches: wide-spreading, sometimes nearly horizontal, in *H. cooperi*, obliquely and relatively sharply ascending in *H. ruderdale*. The well-marked difference in flowering time facilitates sorting in the herbarium where it is otherwise not particularly easy to distinguish them. The persistent white wool or cobwebby hairs on the inflorescence branches and often to a point well below the first forking of the stem is useful to distinguish *H. ruderdale* from *H. cooperi*, where cobwebby or woolly hairs are generally absent at maturity except immediately below the heads.

Seed of both *H. ruderdale* and *H. cooperi* was sown simultaneously at Edinburgh in March 1974. *H. cooperi* grew rapidly; some plants were almost in flower by late June, and most flowered before the end of summer. The plants of *H. ruderdale* grew rather more slowly and although some produced flowering stems by mid-July, more than half have remained as rosettes. These behavioural differences in Edinburgh reinforce the supposition that the vernal *H. ruderdale* overwinters as a seedling in nature, whereas *H. cooperi* probably germinates in spring and grows straight through to flowering.

168. *Helichrysum spodiophyllum* Hilliard & Burt, species nova *H. subglomerato* Less. et *H. oligopappo* Bolus affinis sed ab utroque habitu tapetiformante et involucri 4-5 mm (haud 2.5-3.5 mm) longo differt.

Herba vel suffrutex dense caespitosa, tapetiformans; caulis primarius lignosus, 1 cm usque diametro, ramulos numerosos prostratos nodis incrassatis fasciculis foliorum praeditis emittens; caules floriferi plerumque basi decumbentes, ad 10-25 cm erecti, simplices, sericeo-argentei, foliati sursum bracteati. Folia radicalia 10-100 × 1-2 mm, linearia, plana vel canaliculata, apice subacuto, basi expansa amplexicauli, utrinque griseo-sericeo-lanata; caulina ad 20 mm longa, sursum decrescentia, lineari-lanceolata vel lanceolata, basi lata amplexicauli, patentia vel appressa, griseo-sericeo-lanata. Capitula homogama cylindrica, 4-5 × 2 mm, numerosa, in glomerulam congestam corymbosam 10-20 mm diam. disposita, basi indumento papyraceo conexa. Involucri bractae 3-4-seriatae, dense imbricatae, flores aequantes, translucens, exteriores brunneo-apiculatae, interiores vivide luteae opacescens levissime radiantes. Receptaculum alveolatum. Flores 8-12. Achaenia 0.75 mm, elliptica, obscure costata, epapillosa. Pappi setae c. 5, corollam aequantes, apicibus plumosis, basibus haud cohaerentibus.

SWAZILAND. Mbabane distr., hill NE of Mbabane, c. 1370 m, 25 ii 1958, *Compton* 27584 (PRE); Nduma, c. 1525 m, 26 i 1961, *Compton* 30474 (PRE).
 TRANSVAAL. Wakkerstroom distr., Oshoek, 2070–2130 m, 24 i 1961, *Devenish* 538 (PRE).

NATAL. Ngotshe distr., Ngome Forest Reserve, c. 1200 m, 12 i 1969, *Hilliard & Burtt* 5933 (NU holo.; E, K, NH, S iso.); *ibidem*, 13 xii 1969, *Strey* 9331 (NH, NU). Mahlabatini distr., Ceza Forest, c. 1065 m, 17 xii 1965, *Hilliard & Burtt* 3318 (E, NH, NU).

CAPE. Stutterheim distr., Dohne, 1525 m, 1898, *Sim* 19746 (NU, PRE).
 Kingwilliamstown distr., Pirie range, summit of Mt Kemp, c. 1400 m, v 1943 *Acocks* 9828 (NH, PRE).

H. spodiophyllum forms mats on flat rock outcrops in grassland. Its distinctive ash-grey leaves provide the basis for the specific name.

169. *Helichrysum tenax* M. D. Henderson var. *pallidum* Hilliard & Burtt, var. nov. a var. *tenaci* foliis griseo-albo-lanatis saltem in pagina inferiore (non glanduloso-pilosis tantum), involucri bracteis ochroleucis fulvido-suffusis (non vivide luteis).

TRANSKEI. Tabankulu distr., Mt Tabankulu, c. 1525 m, 18 xi 1973, *Hilliard & Burtt* 7336 (NU holo.; E, K, PRE, S iso). Mt Ayliff distr., Mt Insizwa, c. 1525 m, 17 ii 1971, *Hilliard & Burtt* 6576 (E, NU); *ibidem*, 17 xi 1973, *Hilliard & Burtt* 7308 (E, K).

NATAL. Alfred distr., Weza, on rock banks to road through forest, 14 xi 1973, *Hilliard & Burtt* 7238 (E, K, MO).

The growth habit of *H. tenax* is in itself interesting, being rather reminiscent, in miniature, of that of some giant *Senecio* from the high East African mountains. The main stem branches at ground level or higher, each branch terminating in a rosette of large leaves. The inflorescence branches arise in the axils of last season's leaves, now withered and dry below the new terminal growth. After flowering, the internodes of the rosette elongate and eventually two or three new vegetative shoots with rosetted leaves are produced towards the stem apex.

In var. *tenax*, although the inflorescence branches are usually loosely white-woolly as well as glandular, the leaves are merely glandular-pilose with traces of wool on the margins and above the principal veins, and the involucre bracts are bright golden yellow or sometimes paler. In the truly beautiful var. *pallidum* the leaves may be pale greyish-white woolly on both surfaces as in specimens from Mt Tabankulu and Mt Insizwa, or thinly cobwebby above, woolly below in specimens from Weza, and the involucre bracts are glossy creamy-white overlaid palest buff. Although the species is widespread from the eastern Cape mountains to Natal, the variety is recorded only from the three localities quoted above, all in a botanically poorly known area. On the farm Hebron, NE of Kokstad in East Griqualand, the rocky top of a ridge is crowded with plants with either green or woolly leaves and pale to bright yellow involucre bracts. Further exploration might well reveal other colonies linking the variety to the species.

On Tabankulu and Insizwa mountains, var. *pallidum* is common on steep boulder-strewn slopes and broken rock faces, often rooted in crevices. The

type material came from a magnificent specimen about a metre across and as tall crowning a beacon cairn erected by the Forestry dept. This underlines the propensity of *H. tenax* for colonizing bare areas: in the Natal Drakensberg, var. *tenax* commonly invades roadside banks and similar denuded places.

170. *Hypochoeris microcephala* (Sch. Bip.) Cabrera var. *albiflora* (O. Kuntze) Cabrera in Not. Mus. La Plata 2:201 (1937) et in Fl. Buenos Aires, Comp. 402 (1963); Tomb in Sida 5:287 (1974).

Type: Argentina, Ceres, Provinz Santa Fé, *O. Kuntze*; Paraguay, Concepcion, *O. Kuntze*.

Syn.: *H. brasiliensis* var. *albiflora* O. Kuntze, Rev. Gen. Pl. 3(2):159 (1898). NATAL. Bergville distr., Winterton, Recreation Park, 27 x 1973, *Hilliard & Burt* 6943 (E, NU). Lions River distr., Nottingham Road, 26 xii 1973, *Hilliard* (E, NU). Pietermaritzburg distr., Pietermaritzburg, Ridge Road, 9 x 1974, *Hilliard* 5536 (E, NU).

Three species of *Hypochoeris* naturalized in Natal were annotated in a previous part of this series (Notes R.B.G. Edinb. 30:121-123, 1970). We now have a fourth to record. *H. microcephala* var. *albiflora* is easily distinguished from the others by its white flowers.

This native of Argentina and Paraguay has also recently been recorded as adventive in Louisiana and Texas, U.S.A. We are indebted to Dr A. L. Cabrera for confirming the determination of this plant.

171. *Lopholaena trianthema* (O. Hoffm.) B. L. Burt, comb. nov.

Type: Tanzania, Unyika, *Goetze* 1352 (iso. E).

Syn.: *Senecio trianthemos* O. Hoffm. in Bot. Jahrb. 30:437 (1901).

TANZANIA. Mbeya distr., Mbozi, 1530 m, 28 viii 1933, *Greenway* 3621 (K); Mbozi, 2 ix 1932, *Jessel* 38 (K); Mbeya, 27 ix 1932, *Geilinger* 2763 (K); Chunya-Mbeya road, 9 ix 1954, *Smith* 1248 (K).

ZAMBIA. Abercorn distr., Abercorn, 9 vii 1964, *Mutimushi* 819 (K); track to Vomo Gap, 1500 m, 8 vii 1961, *Richards* 15302 (K); Chilongwelo, 1440 m, 6 x 1954, *Richards* 1957 (K).

This species is not mentioned in the revision of *Lopholaena* by E. P. Phillips & C. A. Smith (in Trans. Roy. Soc. S. Afr. 21:221-238, 1934). It is a curious omission because the description of *Senecio trianthemos* appeared alongside those of *S. ussanguensis* O. Hoffm. and *S. dolichopappus* O. Hoffm., two species correctly transferred to *Lopholaena* by Phillips & Smith. These three species were all collected by W. Goetze in the mountains at the head of Lake Malawi, and Phillips & Smith recognized a fourth in the original material of *L. dolichopappa*. They segregated this as *L. brevipes*. *L. pauciflora* Thellung comes from much the same area, so that there is now seen to be a concentration of six species in this part of southern Tanzania.

In the arrangement of the genus by Phillips & Smith, *L. trianthema* is to be placed next to the Rhodesian *L. brickellioides* S. Moore in section *Paniculatae*. From this species it is distinguished by its smaller capitula and (probably) white not purple flower-heads.

172. *Senecio albanopsis* Hilliard, *species nova* *S. inornato* DC. affinis sed capitulis majoribus (bracteis involucri 7.5–11 mm longis, haud 4–5.5(–7) mm), radiis 8 (haud 5), pedunculis plerumque plus quam 4 cm longis et foliis radicalibus pro rata angustioribus (i.e. lamina lineari-lanceolata haud elliptica) recedit.

Herba perennis ad 1 m alta, caudice robusto lignoso basibus foliorum tenuifibrosis; caulis florifer simplex vel interdum inferne semel vel bis furcatus, glaber vel paulo araneosus, foliatus. *Folia* radicalia et caulina inferiora ad c. 35 × 2.5 cm, petiolo tenui lento laminam aequante; lamina lineari-lanceolata, apice acuta, basi in petiolum sensim attenuata, marginibus minute et interdum dense callosio-denticulatis saepe subrevolutis, primum araneosa mox glabrata; caulina similia sed sessilia, in bracteis lineari-lanceolatas transeuntia. *Capitula* radiata, ad 20 corymboso-paniculatum in pedunculis longis praecipue ad capitula versus bene bracteatis disposita. *Involucrum* turbinatum; bractee 12–14, 7.5–11 mm longae, disco aequales, nervis resinosis; bractee calyculi paucae, breves, plerumque minus quam quartam partem involucri aequantes. *Flores* radii 8, patentes; lobi corollae disci linea media instructa; flores radii et disci vivide flavi. *Achaenia* c. 6 mm longa, utrinque attenuata, costata, glabra.

NATAL. Camperdown distr., Inchanga Hill, c. 600 m, 5 iii 1971, *Hilliard & Burt* 6775 (E holo.; NU iso.); Nchanga, 1 mile N of main road, 760 m, 18 iv 1947, *Codd & Dyer* 2798 (PRE); Nagle Dam, 30 i 1957, *Wells* 1131 (E, NU, PRE). New Hanover distr., Kings Hill Halt before Wartburg, 28 xii 1970, *Gordon-Gray* 6328 (E, NH, NU). Pietermaritzburg distr., Broadmoore, 26 i 1912, *Rudatis* 1594 (E). Pinetown distr., Everton, Eskotene, 610 m, 3 xii 1963, *Hilliard* 1332 (NU); Kloof, 27 iv 1935, *Munro* s.n. (PRE); *ibidem*, April 1935, *Marriott* s.n. (NH). Inanda distr., Inanda, *Wood* 821 (NH). Mapumulo distr., near Insusi Falls, 550 m, April 1889, *Wood* 4682 (NH); Umlazi distr., Illovo, 1883, *Wood* 1897 (NH); Port Shepstone distr., near Murchison, 600 m, April 1884, *Wood* 2257 (NH); St. Michaels-on-Sea, 21 vi 1963, *Nicholson* 48 (NH).

S. albanopsis will be found in herbaria mixed with *S. albanensis* DC. Neither of the type specimens of *S. albanensis* (Albany, Drège 2108, G–DC! and Albany, Ecklon 1508, G–DC!) has the characteristic scaly peduncles of *S. albanopsis*, and the heads are larger, having about 20, not about 12–14, involucre bracts, the calyculus bracts are about one half to two thirds as long as the involucre, not about one quarter or less, and there are about 13, not 8, rays.

173. *Senecio anomalochrous* Hilliard, *species nova* fortasse *S. striatifolio* DC. affinis sed floribus purpureis, nec flavis, involucri bracteis paucioribus (c. 12, nec 16–20) differt. A *S. discodregeano* Hilliard & Burt, cui similis, capitulis minoribus (bracteis involucri 6–7 haud c. 9 mm), ovariis hirsutis nec glabris.

Herba perennis; caulis florifer ad 1 m altus, solitarius, simplex, inferne foliatus, superne bracteatus, primum uti folia et basis involucri tenuiter albo-lanato-araneosus, indumento saepe tantum ad nodos et basem involucri persistente. *Folia* pro parte maxima radicalia, linearia vel lanceolata, ad 16 × 1 cm, lamina apice acuta vel subacuta, basi in petiolo trientem vel dimidium folii formante basi expanso et semiamplexicauli attenuata,

marginibus obscure vel distincte minute et dense callosocrenulatis; folia caulina radicalibus similia sed sursum mox sessilia et in bracteas remotas lanceolatas semi-amplectentes transeuntia. *Capitula* discoidea c. 8×10 mm, c. 30-flora, 3-12 in pedunculis longis corymbose disposita. *Involucrum* campanulatum; bracteae c. 12, oblongae, acutae, 6-7 mm longae, floribus breviores, in carina incrassatae, resinosae, pilis apicalibus et, interdum, lana basali exceptis glabrae; bracteae calyculi paucae, parvae, appressae, uti eae involucri purpureo-tinctae. *Corolla* 5.5 mm longa fusco-purpurea, lobis linea mediana resinosa ad basin tubi percurrente praeditis. *Ovarium* 1.5 mm longum, hirsutum. *Achaenia* haud via.

TRANSVAAL. Suikerbosrand [SE of Johannesburg], 1830 m, 28 xii 1971, *Bredenkamf* 619 (PRE). Ermelo distr., Nooitgedacht 10, 9 xii 1926, *Henrici* 1245 (PRE); *ibidem*, 1700 m, 21 xii 1927, *Henrici* 1417 (PRE).

ORANGE FREE STATE. Harrismith, 1675 m, xii 1904, *Sankey* 96 (K).

NATAL. Newcastle distr., summit Normandien Pass, c. 2070 m, 21 xii 1963, *Hilliard* 2404 (NU holo.; E iso.). Dundee distr., Dundee Townlands, 28 xi 1964, *Shirley* s.n. (NU). Helpmekaar distr., c. 3 miles from Pomeroy on Helpmekaar road, 6 i 1962, *M. Ram* s.n. (NU). Klipriver distr., Ladysmith commonage, c. 1065 m, 17 xii 1943, *Acocks* 9985 (PRE). Grassy flat near bank of Tugela river, 1220 m, 2 i 1886, *Wood* 3614 (K, BM, NH). Zululand, *Gerrard* 121 (BM), 1054 (K).

S. anomalochrous bears a superficial resemblance to *S. discodregeanus* (no. 177 below) but is easily distinguished by the characters given in the diagnosis above. Also, the leaves are generally narrower than those of *S. discodregeanus*, and in this, as in other respects, resemble those of *S. striatifolius*, which also has hairy ovaries, but the flowers are bright canary yellow, not dull purple, and the heads are sometimes rayed. However, all three species are in the same general affinity. The dull purple flowers of *S. anomalochrous* are, like those of *S. discodregeanus*, anomalous in a group with generally clear bright yellow flowers, and suggested the specific epithet.

S. anomalochrous grows in grassland, often among rock outcrops or in the crevices of rock sheets, flowering mainly in December. It is known only from the SE part of the Transvaal highveld and adjoining NW Natal as far south as the Tugela river, with one record from nearby Harrismith in the Orange Free State.

174. *Senecio burchellii* DC., Prodr. 6:401 (1838); Harv. in Harv. & Sond., Fl. Cap. 3:401 (1865); Levyns in Adams. & Salter, Fl. Cape Penin. 817 (1950). Lectotype: Cape, *Sieber* 34 (G-DC!).

De Candolle's description of *S. burchellii* clearly states that the involuclral bracts number about 12, the rays 5-7. Among De Candolle's quoted specimens, this description fits *Sieber* 34, but, unfortunately, not the two Burchell specimens (no. 1439, G-DC, K, and no. 2283, G-DC, K). *Sieber* 34 must therefore be taken as the lectotype. The Burchell specimens are not to be distinguished from *Drège* 5879, G-DC, type of *S. inaequidens* DC.

S. burchellii of De Candolle's description is a well marked species, a shrubby perennial with linear leaves and turbinate heads. The shape of the

heads, the few involuclral bracts and few rays set it sharply apart from other plants to which the name has been tagged. These have campanulate heads, c. 18–20 involuclral bracts and c. 12 rays.

S. burchellii is found in the SW and W Cape.

The weed common in the eastern parts of South Africa that is called "*S. burchellii*" is *S. inaequidens*.

175. *Senecio caloneotes* Hilliard, species nova *S. reptanti* Turcz. similis et cum eo adhuc confusa, sed stolonibus radiantibus absentibus, petiolis pilosis nec glabris, pilis caulibus florum et bractearum et involucri longis mollibus, haud breviter scabro-glanduloso-pubescentibus, bracteis involucri c. 10 mm (nec 6 mm) longis, et floribus radii 13 longis et patentibus (haud 8, brevibus et recurvis) facile distinguitur.

Herba rhizomatosa; rhizomata tenuia (2–4 mm diam.), ramosa, partibus junioribus saepe purpurascens, ad apices dense foliata, foliis subrosulatis; caulibus florum terminalis, solitarius, simplex, ad 20 cm erectus, pilis mollibus patentibus tenuiter indutus, inferne foliatus, sursum bracteatus. *Folia* radicalia usque ad 6.5 × 0.5 cm, dimidio inferiori petioloideo ima basi expansa et amplectente; lamina oblongo-elliptica, apice subacuta, basi attenuata, marginibus paulo incrassatis subrevolutis serrulatis vel acute subpinnatifidis, utrinque primo tenuiter pilosa, glabrescens, basi ciliata interdum laxe gossypina; folia caulina similia, sed parte petioloidea minus distincta, sursum in bracteis lanceolato-acuminatas marginibus ciliatis mox transeuntia. *Capitula* radiata, solitaria. *Involucrum* anguste campanulatum; bracteae c. 18–22, 9–10 mm longae, discum aequantes, pilis longis patentibus tenuiter pilosae; bracteae calyculi c. 2–6, lanceolatae, marginibus ciliatis. *Flores* radii c. 13, longi et patentes, ut ei disci lutei. *Achaenia* c. 3.5 mm longa, cylindrica, dense costata, inter costis albo-hispida.

LESOTHO. Basutoland [Lesotho] plateau, c. 1 mile downstream from summit of Langelibalela Pass, c. 2900 m, 7 i 1972, *Wright* 1235 (NU holo.; E, K iso.); Thaba Ntlenyana, c. 3300 m, 19 i 1955, *Jacot Guillarmod* 2337 (PRE); summit of Mont aux Sources, 2745 m, i 1894, *Flanagan* 1951 (PRE); without precise locality, x 1941, *Staples* 257 (PRE).

This species has been misidentified as *S. reptans* Turcz., a plant of the northern and western Cape. The Flanagan specimen cited above is so quoted by Phillips in his *Flora of Leribe* (in Ann. S. Afr. Mus. 16:1917) and the Jacot Guillarmod specimen by Jacot Guillarmod in *Flora of Lesotho* (293, 1971). However, *S. caloneotes* is easily distinguished from *S. reptans* on the characters given in the diagnosis. The branching rhizomes with tufts of short narrow deeply toothed and nearly glabrous leaves and 1-headed flowering stems make *S. caloneotes* distinctive among Drakensberg species.

It grows in montane grassland along the high Drakensberg from the Naude's Nek area (between Maclear and Rhodes in Barkly East distr., Cape) to Mont aux Sources, c. 2700 to 3300 m above sea level. The Cape record was made by Galpin in March 1904 on Doodman's Krans Mtn. (*Galpin* 6725 p.p., PRE) but is not formally cited because the collection is mixed with *S. gathlambanus*.

The specific epithet records the beautiful colouring of the young parts.

176. *Senecio caudatus* DC., Prodr. 6:384 (1838); Harv. in Harv. & Sonder, Fl. Cap. 3:371 (1865).

Lectotype: Cape, Katrivierbergen, Drège 3727 (G-DC!, E!, K!).

Selected specimens: CAPE. Mt. Currie distr., farm "Hebron", NE of Kokstad, c. 1600 m, 20 xi 1973, Hilliard & Burt 7358 (E, NU).

NATAL. Underberg distr., Bushman's Nek, Ngwangwane R. valley beyond foot of Bushman's Nek pass, 22 xi 1973, Hilliard & Burt 7409 (E, NU). Alfred distr., Zuurberg, c. 1525 m, 30 xi 1973, Hilliard & Burt 7541 (E, NU). Lions River distr., Nottingham Road station, 1525 m, 8 xi 1893, Medley Wood 5456 (E). Umzinto distr., "Ellesmere", 650 m, 11 xi 1911, Rudatis 1451 (E).

The name *S. caudatus* has been used for two plants that are thoroughly confused in herbaria. The true *S. caudatus* is a marsh plant, sometimes growing right in the water; it has oblong or lanceolate-oblong radical leaves with a broad clasping membranous base. The lectotype specimen, Drège 3727, shows this character quite clearly. The calyculus bracts are few, about equalling the involucre in length and having the margins clothed with long white multicellular hairs.

The plant so commonly confused with *S. caudatus* in herbaria is described below as *S. heliopsis* (no. 178); it has radical leaves with blades mostly more or less elliptic, tapering to a petiole-like basal region as long as the lamina. It is a grassland plant and flowers early in spring after burning; it has well-marked burnt-off leaf bases at the crown; these are lacking in *S. caudatus* where, as might be expected in a marsh plant, the leaf-bases seem to rot off quite quickly, leaving a clean stock. The calyculus bracts are shorter than the involucre and lack the characteristic white hairs of *S. caudatus*.

177. *Senecio discodregeanus* Hilliard & Burt, sp. nov.

Type: Cape, Transkei, between the Umzimvubu and Umsikaba rivers, Drège 5135 (G-DC!).

Syn.: *S. dregeanus* DC. var. *discoideus* DC., Prodr 6:407 (1838); Harv. in Harv. & Sond., Fl. Cap. 3:369 (1865). Type as above.

This species is widespread and common from the eastern Transkei through Natal to the eastern Transvaal and neighbouring Swaziland. It differs strikingly from the rare *S. dregeanus* in its constantly discoid heads lacking calyculus bracts that descend onto the peduncle.

178. *Senecio heliopsis* Hilliard & Burt, species nova *S. caudato* DC. affinis sed foliis radicalibus ellipticis nec oblongis nec oblongo-lanceolatis, bracteis calyculi plerumque eis involucri brevioribus, nec subaequalibus, marginibus saepe minute glandulosis sed pilis longis septatis carentibus.

Herba perennis, caudice robusto lignoso basibus fibrosis foliorum induto; caulis florifer ad 1 m altus, infra inflorescentia simplex, praesertim in parte inferiore foliatus, superne foliis redactis vel bracteatis praeditus. Folia radicalia ad 30 x 9 cm, sed saepe dimidio minora; lamina plerumque late elliptica in basem latum petioloideum amplexicaulem aequilongum attenuata, apice acuto vel leviter obtuso, marginibus subintegris vel calloso-denti-

culatis, leviter carnosula; caulina elliptica vel lanceolata, basi cordato-amplexicauli interdum paulo decurrentia, glabra. *Capitula* radiata 3-9, longe pedunculata, corymbose disposita. *Involucrum* late campanulatum; bractae c. 20 vel plures, 8-13 mm longae discum aequantes, valide carinatae; bractae calyculi paucae vel plures, involucri breviores, marginibus (et interdum involucri ipso) glandulis pedicellatis praeditae. *Flores* radiati c. 13-15, longi, patentes, uti disci flavi. *Ovaria* pilis longis patentibus interdum parvis praedita. *Achaenia* haud visa.

TRANSVAAL. Wakkerstroom distr., "Oshoek", 1950-2000 m, *Devenish* 771 (K, PRE).

NATAL. Utrecht distr., Tweekloof and Altemooi, *Thode* A 1166 (NH, PRE); Kafir Drift—Tweekloof, *Thode* A 280 (K, NH); "Naauwhoek", 2000 m, *Devenish* 117 (PRE). Bergville distr., Mont aux Sources, 2130 m, *Sidey* 1988 (PRE); Cathedral Peak Forest Reserve, 1890 m, *Killick* 1110 (K, PRE). Estcourt distr., Dalton Bridge, 1280 m, *Acocks* 10775 (NH, PRE); Giant's Castle Game Reserve, hut under Giant's Castle, c. 2250 m, *Wright* 916 (E, K, NH, NU). Umvoti distr., Muden, *Warren* s.n. (E, NU). New Hanover distr., Appelbos P.O., 915 m, *Acocks* 11829 (K, PRE). Lions River distr., Nottingham Road—Underberg road, near Nottingham Road, c. 1500 m, *Hilliard & Burt* 6976 (NU holo.; E, K, PRE, MO, S, iso.); Nottingham Road, 1460 m, *Galpin* 9484 (K, PRE); Mooi River, *Johnston* 132 (E). Inanda distr., *Wood* 359 (K). Pietermaritzburg distr., Pietermaritzburg, Claridge, *Huntley* 631 (NH). Richmond distr., Richmond, *Sidey* 3379 (PRE). Underberg distr., Bushman's Nek, 1830 m, *Hilliard* 890 (E, NU); *ibidem*, *Hilliard & Burt* 7408 (E, NU); Hill above Endawana river on road to Coleford, *Hilliard & Burt* 7397 (E, NU). Polela distr., Mawahqua Mt., "Prosperity", *Rennie* 165 (NU); Mawahqua Mt., "Sunset", *Hilliard & Burt* 7207 (E, NU). CAPE. Umzimkulu distr., foot of Ingeli Pass, 1370 m, *Acocks* 13850 (PRE). Mt Currie distr., Mt Currie, 1500-1800 m, *Goossens* 259 (PRE); *ibidem*, 1500 m, xii 1883, *Tyson* 1513a (K). Stockenstrom div., Katberg, *Galpin* 1716 (K); Hogsback, 1525 m, *Dyer* 783 (PRE); Amatola range, NE Cata Forest Reserve, 1830 m, *Story* 3672 (K, PRE). Engcobo distr., Baziya Mt near top, 1220 m, Oct.-Nov., *Baur* 522 (K).

S. heliopsis will be found in herbaria mixed with *S. caudatus* (no. 176 above), but that is a plant of marshy places with oblong or lanceolate-oblong radical leaves not or scarcely narrowed to the base; *S. heliopsis* grows in grassland and has elliptic radical leaves tapering into a broad flat petiole-like base. Also the calyculus bracts of *S. heliopsis* are generally shorter than the involucri bracts and have minutely glandular margins, while the calyculus bracts of *S. caudatus* more or less equal the involucri bracts and generally have long white jointed hairs on the margins.

S. heliopsis flowers mainly between September and December, within about two months of the grass cover being burnt off in spring. It is an exceedingly handsome plant.

We have seen *S. heliopsis* and *S. caudatus* growing together at Bushman's Nek in southernmost Natal, *S. caudatus* confined to marshy ground running with water and, in mid-November, the heads going into fruit, while *S. heliopsis*, at the peak of its flowering, was on the drier ground around the marsh and on the slopes of the grassy drainage lines feeding into the marsh.

179. *Senecio hirsutilobus* Hilliard, species nova *S. hastato* L. affinis, sed foliis radicalibus lyrato-pinnatisectis, capitulis majoribus (bracteis involucri c. 12–14 mm, nec 9–12 mm, longis) et corollae lobes apicibus hirsutis nec papillosis.

Herba perennis, caudice rhizomatoso ad 1 cm diametro rosula foliorum (tempore florendi interdum carente) coronato; caules floriferi plures, laterales, fistulosi, basi ad c. 6 mm diametro, saepe decumbentes tum ad 60 cm erecti, inferne simplices, superne in inflorescentiam compositam furcati, vel prope basim furcati, uti folia et involucri glandulosi-pilosi. *Folia* radicalia ad 20 cm longa (petiolo lamina duplo longiore incluso), lyrato-pinnatisecta, lobo apicali ad 6×4 cm plus minusve deltoideo, apice obtuso, basi plus minusve truncato, marginibus sinuato-serrulatis vel grossius et irregulariter dentatis et lobatis, lobis lateralibus paucis parvis; petioli basi abrupte expansus, amplexicaulis; folia caulina oblanceolata vel oblonga, superne lanceolata, basi lato amplexicauli, marginibus lobulatis, serratis vel serrulatis. *Capitula* radiata, pauca, in pedunculis longis nudis corymboso-paniculatim disposita. *Involucri* campanulatum; bractee c. 12, c. 12–13 mm longae, disco aequales; bractee calyculi paucae. *Flores* radii 8–12, longi et patentes; lobi corollarum disci pilis longis hirsutis apiculati, linea media loborum in partem ampliatae tubi percurrente, omnes pallide lutei. *Achaenia* c. 4 mm longa, anguste cylindrica, dense costata, inter costas albo-hispida.

NATAL. Impendhle distr., Impendhle, "Tillietudlem", c. 1675 m, xii 1948, *Huntley* 465 (E, NU). Polela distr., "Glengariff", 1675 m, 12 xii 1972, *Rennie* 227 (E, NU). Ixopo distr., Ixopo, "Maxwell", 1200 to 1500 m, i 1895, *Evans* 679 (NH). Underberg distr., Bushman's Nek, towards foot of Bushman's Nek Pass, *Hilliard & Burt* 7418 (E, NU). Alfred distr., Ngeli Mt, c. 1200 m, i 1966, *Hilliard & Burt* 3475 (NU holo.; E iso.), *ibidem*, 5 i 1964, *Hilliard* 2512 (NU); *ibidem*, 2 i 1966, *Strey* 6367 (NH, NU); Zuurberg near Weza, c. 1500 m, 29 xi 1973, *Hilliard & Burt* 7556 (E, NU).

CAPE. Mt Currie distr., Mt Currie, 1675 m, 24 xi 1930, *Goossens* 244 (K, PRE); *ibidem*, 15 xi 1973, *Hilliard & Burt* 7251 (E); farm "Hebron", NE of Kokstad, 20 xi 1973, *Hilliard & Burt* 7371 (E, NU); between Flagstaff and Kokstad, 4 xii 1928, *Hutchinson* 1797 (K, PRE). Mt Ayliff distr., Insizwa, 26 i 1895, *Penther* 972 (PRE). Engcobo distr., Engcobo Mt, 1525 m, i 1896, *Flanagan* 2733 (PRE); Baziya, 760 m, Nov., *Baur* 561 (K). Pondoland, Fort Donald, 1070 m, xii 1885, *Tyson* 3147 (K).

S. hirsutilobus derives its name from the extraordinary tufts of hairs at the tips of the corolla lobes of the disc flowers. These together with the lyrate-pinnatisect radical leaves render the plant quite unmistakable. It grows in grassland, often on steep slopes near forest margins or among rock outcrops, its rather lax stems supported by the grass or other vegetation, and flowers mainly from November to January.

180. *Senecio ingeliensis* Hilliard, species nova *S. hirsutilobo* Hilliard affinis sed foliis radicalibus oblanceolatis dentatis vel lobatis (haud lyrato-pinnatisectis), lobis corollarum disci papilloso-apiculatis (nec hirsutis) differt.

Herba perennis caudice lignoso ad 1 cm diametro rosula foliorum coronato; caules floriferi plures, laterales, decumbentes tum erecti, fistulosi, ad 6 mm diametro, 70 cm longi, inferne simplex superne in inflorescentiam compositam

furcati, plus minusve remote foliati, uti folia et involucri bracteae subglabri vel tenuiter glanduloso-pubescentes. *Folia* radicalia ad 35×6 cm, oblanceolata, ad partem basalem petioloideam amplexicaulem angustata, apice obtusa, marginibus leviter lobatis vel profunde dentatis, lobis denticulatis vel foliis minoribus interdum sinuato-denticulatis; folia caulina oblanceolata vel oblonga sursum lanceolata et in bracteas transeuntia, basi lato amplexistente, marginibus varie dentatis. *Capitula* radiata, pauca in pedunculis parce bracteatis in paniculam laxam corymbosam disposita. *Involucrum* campanulatum; bracteae c. 12, (11-)12-14 mm longae, disco aequales; bracteae calyculi paucae. *Flores* radii 8-12, longi, patentes; flores disci lobis corollae linea media per partem tubi ampliata percurrente; flores omnes flavi. *Achaenia* 4-5 mm longa, cylindrica, dense costata, inter costas albo-hispida.

NATAL. Bergville distr., Cathedral Peak Forestry Station, path between Camel and Pyramid, 2130 m, 4 xii 1952, *Killick* 1823 (K, PRE). Mpendhle distr., "Storm Heights", c. 2130 m, 3 xii 1967, *Wright* s.n. (E, NU). Alfred distr., Ngeli Mt, c. 1850 m, 3 i 1969, *Hilliard & Burt* 5776 (NU holo.; E, K, NH iso.).

CAPE. Barkly East distr., Rhodes to Naude's Nek, 2560 m, 22 ii 1971, *Hilliard & Burt* 6701 (E, K, NU).

LESOTHO. Valley above Buffalo River waterfall, c. 2500 m, 13 iii 1904, *Galpin* 6720 (K, NH; PRE mixed with another sp.).

S. ingeliensis is recorded only along the high Drakensberg from Naude's Nek, north of Maclear in East Griqualand, to the Cathedral Peak area on the Natal-Lesotho border, and from Ngeli Mt, an outlier of the Drakensberg. It grows in montane grassland, flowering between December and March.

It closely resembles *S. natalicola* described below, but that is a coastal plant, flowering between August and November. Furthermore *S. ingeliensis* has about 12 involucre bracts mostly 12-14 mm long, while the coastal plant has about 20 bracts 10 mm long.

181. *Senecio macrocephalus* DC., Prodr. 6:407 (1838); Harv. in Harv. & Sonder, Fl. Cap. 3:362 (1865).

Lectotype: Cape, Katriviersberg, *Drège* 5891 (G-DC!).

Syn.: [*S. speciosus* auct. non Willd.; J. D. Hooker in Bot. Mag. t. 6488 (1880)]

S. gyrophyllus Klatt in Bull. Herb. Boiss. 4:467 (1896). Type: Natal, Howick (sphalm. Stowick). *Wood* 5175 (Z!, K!, NH!).

S. macrocephalus has generally been equated with *S. speciosus*, but typical *S. speciosus* (no. 189 below) from the south-western Cape has thin-textured pinnately divided leaves tapering into a long broad petiole, and small heads (involucre bracts 9-10 mm long) corymbosely arranged, while typical *S. macrocephalus* has thick-textured leaves narrowed to the base but scarcely petioled, margins entire to shallowly toothed or lobed and large heads (bracts mostly 12 mm long) often more or less racemosely arranged. The inflorescence branches and involucre are often shaggy with long jointed hairs.

S. macrocephalus is absent from the SW Cape. From the E Cape north-eastwards, in the area where the two species overlap in distribution, specific limits are not always clear-cut.

182. *Senecio mauricei* Hilliard & Burt, species nova *S. caudato* DC. affinis sed capitulis minoribus (bracteis involucri 8.5 mm longis, haud 11–14 mm), bracteis calyculi dimidio involucri aequalibus, achaeniis pilosis (haud glabris vel parce hispidulis) differt. Insuper locos graminosos haud paludosos incolit.

Herba perennis rosulas plures foliorum emittens, caudice fibras petiolorum vetustorum induto; caulis florifer simplex vel superne in inflorescentiam compositam parce furcatus, foliatus, pilis araneosis in axillis foliorum exceptis glaber. *Folia* pro maxima parte radicalia, ad c. 18×0.8 cm; lamina oblonga, ad apicem sensim acuta, basi in parte petioloidea late alata basi expansa et semi-amplectente attenuata et hic pilis araneosis paucis praedita ceterum glabra, marginibus incrassatis remote et obscure callosodenticulatis; folia caulina similia sed sursum lanceolata et in bracteas acuminatas transeuntia. *Capitula* radiata, solitaria vel 2–4 in pedunculis longis fere nudis corymbose disposita. *Involucrum* campanulatum; bracteae c. 18–20, 8.5 mm longae, disco aequales; bracteae calyculi perpaucae, lanceolatae, involucri dimidium aequantes, marginibus ciliatis exceptis glabrae. *Flores* radii c. 13, uti disci vivide flavi. *Ovaria* pilis longis albis induta. *Achaenia* haud visa.

NATAL. Underberg distr., Polela, 5–6000 ft, July 1895, *Evans* 512 (K); foothills N of Sani Pass Hotel, c. 1675 m, 24 xi 1973, *Hilliard & Burt* 7484 (NU holo.; E iso.).

S. mauricei honours Maurice Evans, a pioneer collector in the Natal Drakensberg, who first found the plant in 1895. It was eighty years before another collection was made, which points to the great need for botanical exploration in the southern Drakensberg. We found a big colony on a grassy shoulder below Cave Sandstone cliffs at an elevation of c. 1675 m. There were few flowers then, at the end of November. Evans collected it in July. This species was recently collected (Jan. 1975) in full flower on late-burnt grass shoulders in the Garden Castle Nature Reserve (*Hilliard & Burt* 7771).

183. *Senecio natalicola* Hilliard, species nova *S. ingeliensi* Hilliard affinis sed bracteis involucri c. 20, 8–10 mm longis (haud c. 12, 12–13 mm longis) differt. Insuper floret vere, haud aestate.

Herba perennis, caudice lignoso ad 1 cm diametro rosulam foliorum coronato; caules floriferi plures, laterales, decumbentes tum erecti, fistulosi, ad 60 cm alti, inferne simplices, superne in inflorescentiam compositam furcati, remote foliati, uti folia et involucrum parce glanduloso-pubescentes. *Folia* radicalia ad 30×5 cm, oblanceolata, in basim petioloideum latum planum amplectentem angustata, apice obtusa, marginibus grosse et irregulariter dentatis vel lobulatis inferne saepe tantum denticulatis; folia caulina oblonga vel lanceolata sursum mox in bracteas transeuntia, basi lato amplectente, marginibus serrulatis vel denticulatis. *Capitula* radiata, pauca, in pedunculis longis bracteatis corymboso-paniculatim disposita. *Involucrum* campanulatum; bracteae c. 18–20, 8–10 mm longae, disco aequales; calyculi bracteae paucae. *Flores* radii 12–13, longi, patentes; flores disci lobis corollae linea mediana praeditis; flores omnes pallide flavi. *Achaenia* c. 3.5 mm longa, cylindrica, dense costata, inter costas albo-hispida.

NATAL. Mtunzini distr., Ngoye Forest, c. 275 m, 21 xi 1965, *Hilliard* 3163 (NU holo.; E iso.); *ibidem*, iii 1887, *Wood* 3668 (NH). Inanda distr., Inanda Hill, x 1881, *Wood* 1393 (K, NH). Durban distr., near Durban, 21 ix 1903, *Wood* 19550 (NH); Clairmont, viii 1913, *Wood* 12334 (NH); *ibidem*, ix 1894, *Wood* 8527 (NH); *ibidem*, 20 ix 1898, *Wood* 7285 (E). Port Shepstone distr., c. 5 miles from Port Edward on Izingolweni road, c. 275 m, 1 ix 1963, *Hilliard* 1711 (NU); Beacon Hill East, 365 m, 20 ix 1966, *Strey* 6899 (NH, NU). CAPE. Pondoland (Transkei), Flagstaff distr., Mkambati Leper Inst., without collector or date (PRE 32310 & 32311).

S. natalicola ranges along the Natal coast from Ngoye Forest near Eshowe south to about the Umsikaba river in Pondoland, part of the Transkei, from near sea level to c. 350 m. It grows in grassland, sometimes in marshy places, and flowers between August and November. It strongly resembles *S. ingeliensis*: see under that species (no. 180) for discussion. *S. natalicola* is found in the coastal regions that were originally christened Natal, in contrast to *S. hirsutilobus* and *S. ingeliensis*, found in the then-unknown mountainous areas of the province.

184. *Senecio paludaffinis* Hilliard, species nova *S. affini* DC. proxima sed bracteis calyculi paucioribus (plerumque minus quam 14), bracteis involucri pappo paulo, haud multo, brevioribus, caule florifero laxius et remotius foliato recedit. Insuper *S. paludaffinis* paludes, *S. affinis* locos graminosos incolit.

Herba perennis ad 75 cm alta, caudice robusto lignoso basibus fibrosis foliorum emortuorum coronato; caules floriferi solitarii, infra inflorescentia simplices, praecipue in parte inferiore et in foliorum et bractearum axillis tenuiter lanato-araneosi, remote foliati. *Folia* pro parte maxima radicalia, ad c. 30 × 1(-1.5) cm; lamina petiolo basi expanso amplexicauli aequalis, elliptico-lanceolata, apice acuto, basi in petiolo angustato, marginibus dense et minute calloso-denticulatis, nervis lateralibus vix conspicuis, glabra, petiolo tenuiter lanato-araneosa; folia caulina similia, sessilia, basi lato, remota, sursum mox in bracteas inflorescentiae lanceolato-acuminatas transeuntia. *Capitula* radiata, ad c. 12 in pedunculis longis parce bracteatis corymboso-paniculatim disposita. *Involucrum* campanulatum; bractee c. 14-22, 6-7 mm longae, disco breviores, carinatae, nervis resinosis; bractee calyculi plures, interdum involucrum paene aequantes, fere glabrae vel pilis paucis lanatis indutae. *Flores* radii 8, uti disci flavi, lobis corollae linea mediana notatis. *Achaenia* c. 5 mm longa, fusiformia, costata, glabra. TRANSVAAL. Wakkerstroom distr., "Oshoek", 1950 m, 1 i 1964, *Devenish* 1096 (K).

NATAL. Estcourt distr., Kamberg, Stillrust, c. 1650 m, 23 xii 1967, *Wright* 359 (NU holo.; E, K, NH, iso.); *ibidem*, 26 xii 1971, *Hilliard* 5249 (E, K, MO, NH, NU, S). Lions River distr., Nottingham Road, vlei near Rawdon's Hotel, 1470 m, xi 1963, *Hilliard* 1984 (E, NH, NU); "The Dargle", 1530 m, 8 xii 1963, *Hilliard* 2153 (NU).

SWAZILAND. Mbabane distr., Forbes Reef, c. 1370 m, 19 i 1962, *Compton* 31245 (PRE).

The criteria given in the diagnosis to distinguish *S. paludaffinis* from *S. affinis* may seem trifling, but the two species do in fact look very different

and this difference is reinforced by their preference for two very different types of habitat.

185. *Senecio polyodon* DC., Prodr. 6:386 (1838); Harv. in Harv. & Sond., Fl. Cap. 3:373 (1865).

Type: Cape, Drège 6359 (G-DC!).

Syn.: *S. versicolor* Hiern, Cat. Welw. Afr. Pl. 3, 597 (1898). Type: Angola, Huilla, Welwitsch 3678 (BM!, K!).

S. metallicorum S. Moore in Journ. Bot. 41:134 (1903). Type: Transvaal, Johannesburg, banks of stream to northward, Rand 979 (BM!).

S. breyeri S. Moore in Journ. Bot. 59:230 (1921). Type: Transvaal, Nelspruit, Barberton, Breyer in herb. Rogers 24019 (BM!, PRE!).

var. ***subglaber*** (O. Kuntze) Hilliard & Burt comb. nov.

Type: Natal, Van Reenen's Pass, Kuntze (Z!, K!).

Syn.: [*S. concolor* DC., Prodr. 6:407 (1838) quoad Drège 5878, Katriviersberg (G-DC!, K!), excl. lecto. et descript.; Harv. in Harv. & Sond., Fl. Cap. 3:362 (1865), p.p.]

S. concolor var. *subglaber* [O. Hoffm. ex] O. Kuntze, Rev. Gen. 3(2):172 (1898).

De Candolle placed his *S. polyodon* among yellow-flowered species, and described the achenes as glabrous, whereas his dissection notes on the type sheet correctly record them as subpuberulous. Not surprisingly, Harvey, who saw only a minute fragment in Sonder's herbarium, admitted that he did not know what the plant was. The name has since been ignored. Examination of the type shows quite clearly that this species is the common plant with white to purple flowers (which may fade to dingy yellow) that favours marshy habitats from Angola, Zambia and Rhodesia through the eastern half of South Africa to about East London in the E Cape. As shown above, there are three later synonyms of *S. polyodon* but none of these names has been in general use and the plant seems usually to have been thought of as "aff. *erubescens*" or a discoid form of *S. concolor*.

The latter determination involves a misapprehension as to the true *S. concolor* (see no. 189). The Drège specimen that was the basis of this error must now be placed under *S. polyodon* var. *subglaber*. The variety is simply a radiate form of *S. polyodon* and unfortunately has to bear this inappropriate epithet.

Selected citations:

var. ***polyodon***

TRANSSAAL. Lydenburg distr., Lydenburg, Wilms 833 (E); Top of Long Tom Pass, Hilliard & Burt 6012 (E, NU).

NATAL. Lions River distr., Nottingham Road vlei, Hilliard 1974 (E, NU); Underberg distr., Bushman's Nek, Ngwangwane river valley, Hilliard & Burt 7436 (E, NU).

CAPE. East Griqualand, Mt Currie distr., Kokstad to Franklin road, Hilliard & Burt 7223 (E, NU).

TRANSKEI. Tabankulu distr., foot of Tabankulu Mt, Hilliard & Burt 7278 (E, NU).

LESOTHO. Sani top, ridge north of mountaineer's chalet, Hilliard 5444 (E, NU).

var. *subglaber*

O.F.S. Without precise locality, *Cooper* 813 (E).

NATAL. Lions River distr., Mooi River, *Wood* 821 (E); Nottingham Road vlel, *Hilliard* 1971 (E, NU); Estcourt distr., Tabamhlope, *Wylie* comm. *Wood* 10478 (E).

186. *Senecio purpureus* L., *Syst. Nat.* ed. 10, 1214 (1759) et *Sp. Pl.* ed. 2, 1215 (1763) et *Amoen. Acad.* 6:114 (1764); *Bergius*, *Pl. Cap.* 276 (1767); DC., *Prodr.* 6:405 (1838); *Harv. in Harv. & Sond.*, *Fl. Cap.* 3:363 (1865); *Levyns in Adamson & Salter*, *Fl. Cape Penins.* 812 (1950).

Types: Cape, *Oldenland* (herb. *Burmman*, G (?) n.v.): *Breynius*, *Exoticarum plantarum* *centuria*, t. 57 (1678).

Syn.: *Cacalia villosa* Jacq., *Ic. Rar.* 3:14, t. 580 (1786), et *Coll.* 2:347 (1789).

Senecio glutinosus Roth, *Catalect. Bot.* 2:109 (1800)?—non Thunb.

Senecio mucronulatus Sch. Bip. in *Flora* 27:701 (1844). Type: Cape, *Swellendam*, *Krauss* (G—as *S. variabilis* var. *rivularis* Sch. Bip. ined.).

When publishing *S. purpureus* Linnaeus quoted the *Breynius* illustration and a specimen from *Burmman* (i.e. a specimen collected by *Oldenland* communicated to him by *Burmman*—see *Amoen. Acad.* 6:115, 1764). We have not seen the *Oldenland* specimen but *Breynius*'s illustration clearly depicts the plant currently known as *S. purpureus* and should be chosen to typify the species if *Oldenland*'s plant be something different. This is important, because the specimen labelled *S. purpureus* by Linnaeus himself in the Linnaean herbarium (LINN 996.3) belongs to a quite different species and is probably a discoid plant of *S. speciosus* Willd.; true *S. purpureus* is not now represented in the Linnaean collection.

187. *Senecio gathlambanus* Hilliard, species nova *S. caudato* DC. affinis sed foliis inferioribus in partem petioloideam distincte angustatis, nec oblongis nec lanceolato-oblongis, capitulis minoribus (bracteis involucri 9–11 mm longis, haud 11–14 mm) et achaeniis minoribus 5 mm (nec 8 mm) longis.

Herba perennis 10–14 cm alta, rhizomatosa, rosulis foliorum solitariis vel pluribus vestigiis fibrosis e foliis hornotinis indutis; caulis florifer solitarius, tenuiter pilosus, usque ad inflorescentiam simplex, inferne foliatus superne bracteatus. *Folia* radicalia ad 20 × 1.5 cm; dimidium inferius latum planum petioloideum, basi expanso et semi-amplexicauli, tenuiter pilosum; lamina lineari-lanceolata vel lanceolata, apice subacuta, basi attenuata, glabra vel fere glabra; margines incrassatae, fere integrae vel callososerrulatae vel crenulatae, dentibus aliis saepe aliis majoribus, saepe paulo revolutae et undulatae; folia caulina lanceolata, acuta vel acuminata, basi leviter cordato-amplexicauli, marginibus uti radicalibus, saepe pilis araneosis in axillis et ad dentes adhaerentibus. *Capitula* radiata, saepe solitaria vel ad 5 corymbosae disposita. *Involucrium* campanulatum; bractae c. 20, (8)–9–11(–13) mm longae, discum aequantes, glabrae vel fere glabrae; bractae calyculi plures, leviter araneosae. *Flores* radii (11)–13, longi, patentes, uti disci flavi. *Ovarium* glabrum vel tenuiter pubescens. *Achaenia* 5 mm longa, fusiformia, costata, minute hispida vel glabra.

NATAL. Impendhle distr., summit plateau Drakensberg in vicinity Giant's Castle Pass, c. 3050 m, 20 i 1971, *Wright* 1093 (NU holo.; E, K, MO, PRE, S iso.); *ibidem*, 20 i 1971, *Wright* 1084 (E, NU); Giant's Castle, SE ridge, c. 2440 m, 19 i 1970, *Wright* 951 (E, K, NU). Estcourt distr., Giant's Castle Game Reserve, Bannerman to Injasuti, 3200–3300 m, 20 xii 1967, *Trauseld* 900 (NU, PRE).

LESOTHO. Basutoland plateau c. 1 mile downstream from summit of Langalibalela Pass, c. 2800 m, 7 i 1972, *Wright* 1230 (E, NU). Sani Pass, 2895 m, 18 ii 1973, *Hilliard* 5341 and 5342 (E, NU); *ibidem*, 30 xii 1973, *Hilliard* 5396 (E, NU). Mokhotlong, i 1953, *Liebenberg* 5746 (PRE).

S. qathlambanus is found on the high Drakensberg from the south-eastern tip of Lesotho, where it borders on Barkly East and Mt Fletcher districts of the Cape (Ben McDhui and Tina Head or Doodman's Krans Mt), as far north as Mokhotlong in Lesotho and the Giant's Castle massif in Natal. Galpin (*Galpin* 6725 p.p., PRE) collected the species on Doodman's Krans Mt in March 1904, but is not formally cited above because the gathering is mixed with *S. caloneotes*, also described here. In the same month he also collected the species on nearby Ben McDhui (*Galpin* 6726, PRE).

The plant grows in montane grassland and flowers mainly in December and January. The specific epithet is derived from the Zulu name for the Drakensberg.

188. *Senecio saniensis* Hilliard & Burtt, species nova fortasse *S. caudato* DC. affinis sed foliis lyrato-pinnatisectis (haud oblongo-lanceolatis) marginibus subintegris vel remote denticulatis, parte inferiore petioloidea angustiore.

Herba perennis, rhizomatosa, ad 45 cm alta; caudex lignosus, c. 5–8 mm diam., rosulas foliorum 1–2 hoc anno, anno proximo caules floriferos, emittens. Caules erecti, simplices vel in ramos inflorescentiae furcati, pilis albis longis sparsim praediti, inferne foliati, superne foliis paucis redactis ornati. Folia radicalia ad 20 × 4 cm, lyrato-pinnatisecta, lobo terminali leviter et irregulariter lobulato, marginibus irregulariter dentatis, lobis infimis paucis rotundatis irregulariter dentatis saepe ad costam incisum in parte petioloidea laminam aequante basi expanso semialexicauli breviter decurrentibus, utrinque sparsim pilosa; folia caulina inferiora radicalibus similia sursum decrescentia et sessilia, profunde pinnatifida, lobis angustis patentibus, basi late auriculata, marginibus irregulariter et haud profunde incisa; folia suprema multo redacta lanceolata acuminata, acute et profunde incisa. Capitula radiata, solitaria vel ad 4 in pedunculo longo parce bracteato corymbose disposita. Involucrum campanulatum e bracteis c. 14–20, 9–9.5 mm longis discum aequantibus glabris vel parce pubescentibus; bractee calyculi paucae, longae, praecipue ad margines ciliatae, basi involucri densius pilosae. Flores radii 11–12, longi et patentes, uti disci flavi. *Achaenia* turbinata, 5 mm longa, costata, inter costas albo-hispidula.

NATAL-LESOTHO border. Sani Pass, SW-facing summit cliffs, 2865 m, 18 ii 1973, *Hilliard* 5323 (NU holo.; E, K, PRE, S iso.); *ibidem*, ii 1972, *Grice* s.n. (NU).

S. saniensis is known only from Sani Pass where it grows in quantity in rich black moist turf below the summit cliffs of the pass, shaded by the rock faces from the afternoon sun. The plant is perennial; in February there were

numerous solitary leaf tufts without flowers, as well as the flowering specimens, which lacked a basal rosette though the leaves were mostly crowded towards the base of the stem. In November we saw dry flowering stalks with new growth springing from the base.

Although the affinity of *S. saniensis* possibly lies with *S. caudatus*, which it much resembles in the shape of the involucre, in the glabrous or nearly glabrous involucre bracts, ciliate calyculus bracts, and in the morphology of the achenes, the lyrate-pinnatifid leaves are quite distinctive. They are reminiscent of those of *S. hastatus* L., which are, however, not lyrate but are pinnately cut or lobulate. Also the heads of *S. hastatus* are narrower than those of *S. saniensis* and the involucre bracts are glandular-pilose.

189. *Senecio speciosus* Willd., Sp. Pl. 3:1991 (1804); Ker in Bot. Reg. 1: t. 41 (1815); Loddiges, Bot. Cab. 12: t. 1113 (1826); DC., Prodr. 6:407 (1838); N. E. Brown in Gard. Chron. N.S. 12:615 (1879—fortasse excl. pl.); Wood, Natal Plants 6, 2: t. 550 (1910).

Type: Andrews, Bot. Rep. 5: t. 291 (1803).

Syn.: [*S. pseudo-china* auct. non L.; Andrews, Bot. Rep. 5: t. 291 (1803)].

S. concolor DC., Prodr. 6:407 (1838); Levyns in Adamson & Salter, Fl. Cape Penins. 812 (1950). Type: Cape, Tulbagh, Drège 5914 (G-DC, lecto!).

S. concolor var. *hispido-scaber* DC., Prodr. 6:407 (1838). Lectotype: Cape, between Kei & Buffalo rivers, Drège 5892 (G-DC!, iso. E!, K!).

S. concolor var. *hispidus* Harv. in Harv. & Sond., Fl. Cap. 3:363 (1865). Lectotype: as for var. *hispido-scaber* DC.

S. concolor var. *lyratus* Harv. in Fl. Cap. 3:363 (1865). Lectotype: Simonstown, Wright 309 (K!).

S. speciosus Willd., *S. concolor* DC. and, to a less extent, *S. macrocephalus* DC. have been at the centre of much botanical and nomenclatural confusion.

When Willdenow proposed the name *S. speciosus* he cited only one reference: Andrews' account and illustration under the name *S. pseudo-china* L., and this is the type of the name. Willdenow's description fits this plant and could have been derived entirely from the study of Andrews' work. The specimen in Willdenow's herbarium named *S. speciosus* (sheet no. 15775), would have been quite inadequate as the basis of his description and has been determined by G. Hieronymus as the South American *S. formosus* H.B.K. Whatever its identity it is clearly not the type of *S. speciosus*.

S. concolor DC. originally covered 6 specimens; 3 of them being segregated as var. *hispido-scaber* need not be considered in typifying the species. The remaining 3 were all collected by Drège, at Tulbagh, on the Zuurebergen (misquoted Zneurobergen) and on the Katriviersberg respectively. Examination of these specimens in De Candolle's herbarium shows that the one from Tulbagh is by far the best material, fits the description and is the only one that could have provided the description of the basal leaves. It must therefore be taken as the lectotype.

The provenance of *S. speciosus* was always in doubt, China, Siberia and Mauritius being variously mooted. De Candolle put "China?", but perceptively placed the species in the South African section next to *S. macro-*

cephalus DC. *S. speciosus* has the combination of purple rays and disc, which (as has already been pointed out by N. E. Brown) is restricted to South African species. There can be little doubt that it was collected by travellers passing round the Cape on their way home from the Far East. Comparing Andrews' plate with known South African plants, it is clearly closest to *S. concolor* DC. The plate shows less deeply cut leaves, and fewer stem leaves, than the Tulbagh plant; the later illustration of *S. speciosus* (Bot. Reg. t. 41, 1815) being a closer match in this respect. However, there is, in our view, nothing else with which *S. speciosus* can be equated, and there is little likelihood that it was collected far from the neighbourhood of Cape Town. Brown identified *S. speciosus* with *S. concolor* var. *hispido-scaber* DC., and pointed out that the plant described by Harvey in *Flora Capensis* as *S. concolor* was in fact this variety, and therefore *S. speciosus*.

Harvey had regarded Drège's specimen from the Katriviersberg as 'typical' *S. concolor*: this was not, however, a deliberate choice of lectotype: it was simply a reference to the only cited specimen of which he saw a duplicate. N. E. Brown followed him in this, and thus regarded *S. concolor* as distinct from *S. speciosus*. The specimen from Katriviersberg is indeed a quite different plant: it is *S. polyodon* DC. var. *subglaber* (O. Kuntze) Hilliard & Burt (see no. 185 above).

With the recognition that Drège's Tulbagh specimen must be taken as the type of *S. concolor* DC. it is clear that var. *hispido-scaber* DC., and the other varieties later described by Harvey, do not deserve recognition and revert to synonymy under *S. concolor*, that is *S. speciosus*.

Dr Levyns (in Adamson & Salter, *Fl. Cape Peninsula*, 812, 1950) has said that the Cape Peninsula plant often referred to *S. speciosus* is not that species but *S. concolor* DC. In doing so she was clearly correcting Harvey's view that Drège's Katriviersberg plant is the type of *S. concolor*. Her dismissal of *S. speciosus* was no doubt due to the current confusion with *S. macrocephalus*, which we maintain as a separate species (see no. 181 above, where differential characters are given).

190. *Taraxacum bessarabicum* (Hornem.) Hand.-Mazz., Monog. Tarax. 26 (1907).

Type: Described from E Europe.

Syn.: *Leontodon bessarabicum* Hornem., Suppl. Hort. Bot. Hafn. 88 (1819).

Pyrrhopappus taraxacoides DC., Prodr. 7:145 (1838). Types: Cape Town, Ecklon; Berg an Zwartkei, Drège 6176 (both G-DC, microfiche!)—non *Taraxacum taraxacoides* (Koch) Willk. (1870).

Taraxacum fulvipilis Harv. in Harv. & Sond., Fl. Cap. 3:527 (1865); Northington in Journ. S. Afr. Bot. 40:314 (1974) as *T. fulvipillis*. Type: Cape, between Los Tafelberg and Wildschuttsberg, on the flats, Drège 6176 (S!).

[*Taraxacum magellanicum* auctt. non Sch. Bip; Burt Davy in Journ. S. Afr. Bot. 1:153 (1935)].

TRANSVAAL. Potchefstroom, on the banks of the Mooi R., 1903, Burt Davy 1030 (BOL, K).

CAPE. Barkly East distr., Ugie, Pomona, 1927, Gill s.n. (BOL). Kuruman div., Cotton End, banks of Matlaring R., 12 x 1937, Acocks 2505 (BOL, K); sources of Moshowa R. near Takun, 27 ix 1812, Burchell 2278 (K)?

The type of *Taraxacum fulvipilis* (Drège 6176) was sent to Edinburgh on loan through the courtesy of the Director of the Rijksmuseum, Stockholm. It was examined by Dr A. J. Richards (Newcastle-on-Tyne) who determined it as *T. bessarabicum* and also saw the other specimens cited above.

De Candolle's earlier *Pyrrhopappus taraxacoides* is based in part on the same Drège no. 6176. Northington has pointed out that there may have been some muddle in Drège's labelling as De Candolle and Harvey do not give the same locality. However he is wrong in thinking that De Candolle's specimen came from Drège's location 1a, 24. *Pyrrhopappus* is clearly listed by Drège (Zwei Pflanzengeographische Dokumente, 184) from station 1a, 19 "Zwischen Windvogelberg und Zwartkey, an felsigen Orten an einem kleinen Flusse, 2000–3000 Fuss, November". For his *T. fulvipilis* Harvey gives the locality that Drège records for 6176 (as *Hypochoeris*).

Either one of these specimens is mislabelled or Drège knew his material under 6176 came partly from one locality, partly from the other. In view of this possibility that two separate gatherings were made, *T. fulvipilis* Harv. need not be regarded as illegitimate because it was based on a number already described by De Candolle under another name. Furthermore De Candolle did not actually quote the number when publishing, though it is clearly marked on the specimen in his herbarium.

Pyrrhopappus taraxacoides DC. is the type (and only) species of *Pyrrhopappus* sect. *Piesis* DC. (Prodr. 7:144, 1838). *Taraxacum bessarabicum* is the type species of *Taraxacum* sect. *Leptocephala* v. Soest (in Vegetatio 5–6:532, 1954). It will therefore be necessary to transfer sect. *Piesis* DC. to *Taraxacum* and take it up to replace the later name *Leptocephala*. However, this is, perhaps, not the place to make a change in the sectional nomenclature of *Taraxacum*, and we leave botanists studying the whole genus to take care of that.

Dr Richards has pointed out to us that *T. bessarabicum* is one of the sexual but self-compatible species. It is a native of south east Europe and western Asia, having roughly the range of its section, *Leptocephala*, as mapped by Richards (in Bot. Journ. Linn. Soc. 66:199, 1972). We are most grateful to Dr Richards for his help with this and other *Taraxaca*.