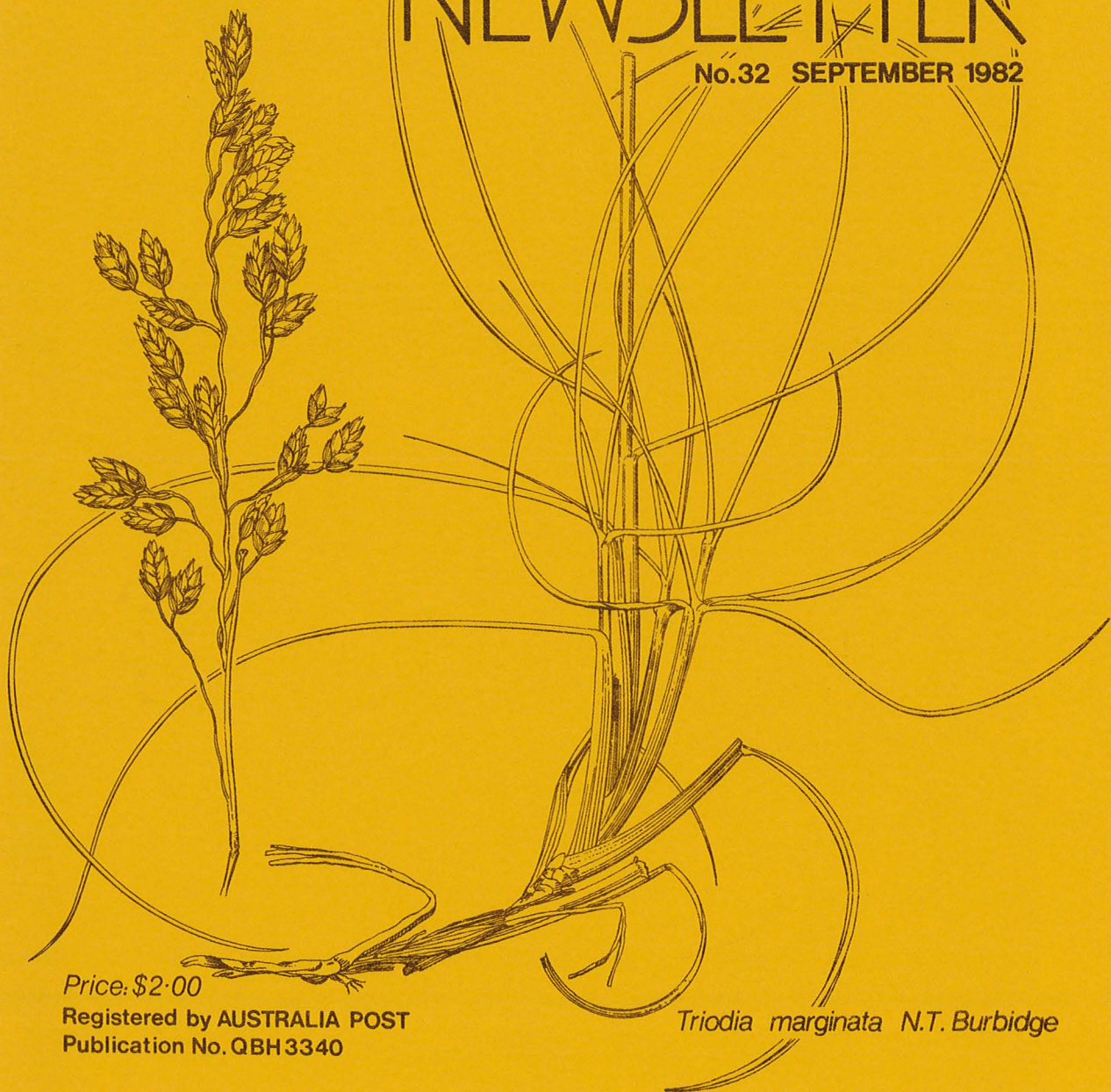




Australian Systematic
Botany Society
NEWSLETTER

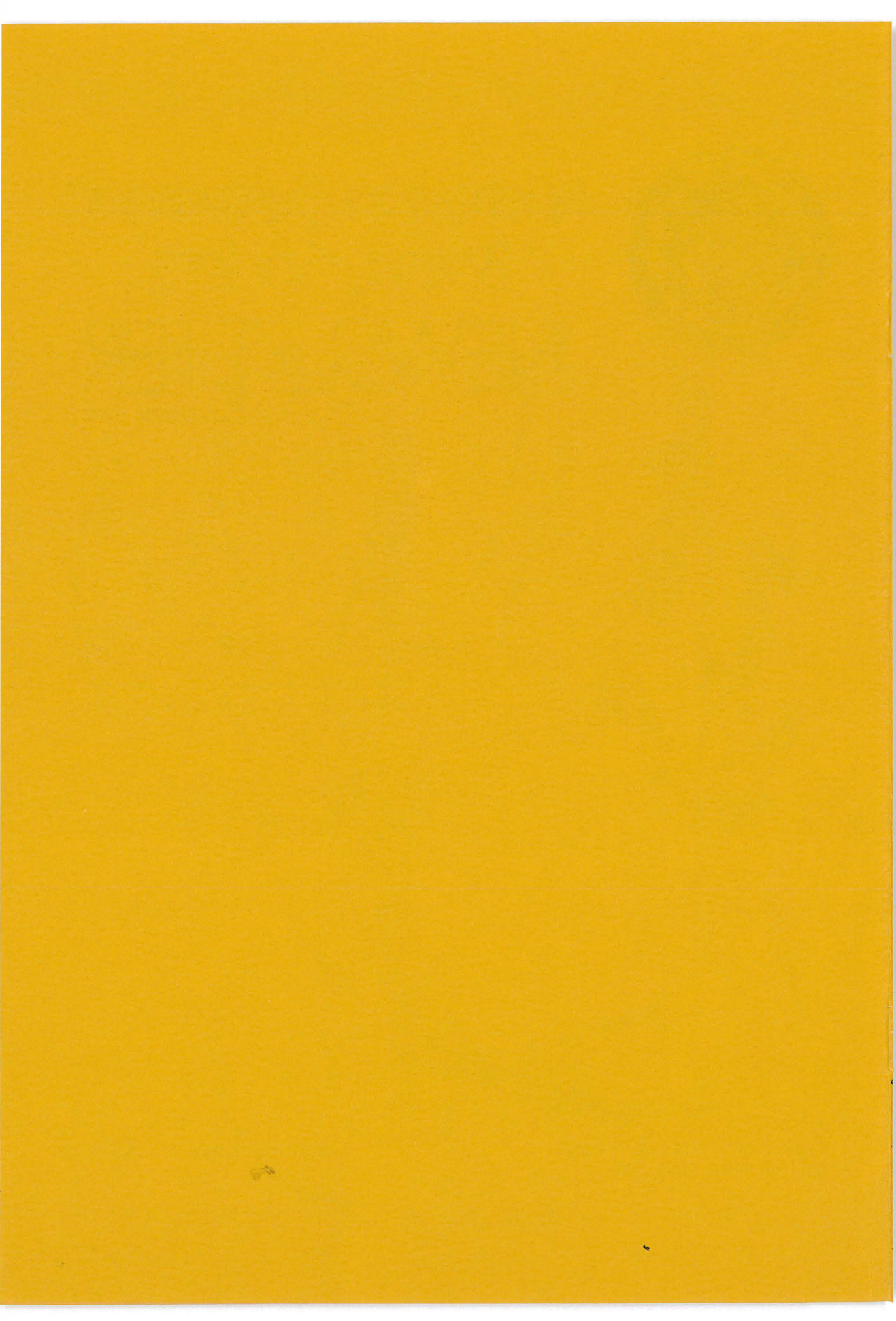
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The Society

The Australian Systematic Botany Society is an association of over 300 people with professional or amateur interest in Botany. The aim of the Society is to promote the study of plant systematics.

Membership

Membership is open to all those interested in plant systematics and entitles the member to attend general and chapter meetings and to receive the Newsletter. Any person may become a member by forwarding the annual subscription to the Treasurer. Subscriptions become due on the 1st January.

The Newsletter

The Newsletter appears quarterly and keeps members informed of Society events and news, and provides a vehicle for debate and discussion. In addition original articles, notes and letters (not exceeding ten pages in length) will be published. Contributions should be sent to the Editor at the address given below, preferably typed in duplicate and double-spaced. All items incorporated in the Newsletter will be duly acknowledged. Authors are alone responsible for the views expressed. The deadline for contributions is the last day of February, May, August and November.

Notes

- (1) The deadline for the next Newsletter is 30th November.
- (2) Membership fees were due on 1st January. If you have not already paid - send a cheque for \$10 to the Treasurer (address given above).
- (3) Advertising space is available for products or services of interest to ASBS members. Current rates are \$30 per full page, \$15 per half page. Contact the Newsletter Editor for further information.

Editor

Dr G.P. Guymmer,
Queensland Herbarium,
Meiers Road,
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Oxalis in Australia

Joy Thompson

Royal Botanic Gardens, Sydney

Like many other Australian botanists I have been convinced for years that Australia has its own set of Oxalis species of the 'Corniculata' group. Help has now come from an unexpected source. A very thorough revision of this complex on a world basis has been published by Alicia Lourteig, Phytologia 42: 57-195 (1979).

In spite of having only the Australian specimens in European herbaria at her disposal, she has brought considerable illumination to the local scene. Unfortunately this revision does not tie all the loose ends in the right place, so if we are to use it to understand the origin and distribution of our native species we will have to build up our collections and study the group further.

Lourteig's key to species does not work, and is frustrating and even misleading, but her illustrations of taxa are most informative, each representing the hub of a taxon which can be sorted from the specimens at NSW. I would disagree with Lourteig on the placing of some individual specimens, and I cannot reconcile her specific descriptions with the taxa I have sorted out, but for the present I would recommend that we accept her names, use her illustrations (rather than her descriptions) and collect good specimens of native Oxalis with underground parts, flowers, mature fruit, seeds and notes on habitat (especially soil-type), so that we are thoroughly familiar with this much-neglected group before it has to be covered in the Flora of Australia.

Below is a tentative key which stresses the apparently significant character, stem-hair-direction. This divides Australasian (and New Guinea) species into two natural groups which appear to have originated in the north and speciated into more rigorous habitats.

The key has been prepared in the hope that Australian botanists will use it to distinguish species, and will no longer use the name Oxalis corniculata when writing about or listing a native species. The loss of information by the use of the name of a garden weed for five native species, each with its own soil preference, is considerable.

Key to Australian Species of Oxalis

1. Stem-hairs mostly antrorse; stipules usually conspicuous but not truncate; inflorescences usually 1-3-flowered, but often in O. perennans ∞
2. Plant with a stout tap-root; fruits long and usually slender and erect
O. perennans Haw.

(This species is endemic to Australia. It is widespread, especially in inland areas on heavy soils. Superficially similar to O. radicata, it differs in stem pubescence, seed shape, stipules and soil preference.)

- 2.* Plant probably without a tap-root; fruits long or short but not slender and erect

3. Plant rather glaucous, with leaflets of a characteristic "angular" shape. Hairs usually sparse; fruit long but often stout near the middle

O. rubens Haw.

(A species of (? eastern) Australia, Lord Howe Island and New Zealand. It seems to be associated with islands and beaches and is often on coastal dunes with Spinifex.)

- 3.* Plant green, with rounded leaflets; hairs sparse or dense; fruit short and broad or if longer then straight-sided

4. Fruit short and broad, with strongly ridged seeds

O. exilis Cunn.

(A species of eastern Australia and New Zealand. Several taxa may be involved here, but collections are inadequate. I am including all forms with small fruit here. O. exilis is often found on humus-rich or peaty creek-flats.)

- 4.* Fruit moderately long but blunt (apex tapering suddenly) and straight-sided with the seeds shallowly marked

*O. sp.

(From its distribution this species must be introduced. Lourteig included it in O. corniculata L. subsp. corniculata var. pilosa (M. Bieb.) Hohen but it bears little relationship to the common form of O. corniculata. It can be immediately recognised by its fruit, which is usually in threes and covered with dense septate hairs; and the expanded apex of its stipules.)

- 1.* Stem-hairs spreading or retrorse; stipules either inconspicuous, or scarious and truncate; inflorescence with 3-∞ flowers

5. Fruit short and stout; plant probably without a stout tap-root; stems long and trailing; leaves densely pubescent with inconspicuous stipules

O. chnoodes Lourt.

(This furry species is found on basaltic and humus-rich soils in coastal forests of eastern mainland Australia. The inflorescence is variable but can be complex. Lourteig has placed Illawarra (NSW) specimens in her O. novae-guineensis but Australian material seems to represent only one species.)

- 5.* Fruit long and relatively narrow; plant with or without a tap-root and with erect or trailing, pubescent or glabrescent stems

6. Stipules keeled and inconspicuous; tap-root stout and woody

O. radicata A. Rich.

(This species is widespread on sandy soils in Australia and is, according to Lourteig, in Asia and Africa with the Type from Abyssinia (Ethiopia). It seems biogeographically anomalous, as Australian specimens appear closely related to the less-specialised O. chnoodes and O. novae-guineensis.)

- 6.* Stipules obvious and truncate, usually thin and glabrous except for hairs at the margin; tap-root, if developed, not stout and woody

**S. corniculata* L.

(A weed restricted to gardens and lawns, this species is very variable (as are the native species) in colour, density of pubescence, flower size, flower-number, etc., but can be recognised by the stipules and, in the form found in Sydney, by the aspect of the fruit which has a short pubescence of reversed hairs and a tapering apex.)

Sorghum timorense (KUNTH)BUSE

A NEW NAME FOR *S. AUSTRALIENSE* GARBER & SNYDER

B.K. Simon

Queensland Herbarium, Brisbane

Downs Sorghum (Hartley, 1979) is the common name of a widespread annual sorghum with an obtuse callus scar and whorled 4-6-jointed racemes growing on black soil plains of northern Australia. In the Northern Territory and Queensland it has been called *Sorghum australiense* Garber & Snyder, while in Western Australia (Gardner, 1951) the name *Sorghum timorense* (Kunth)Buse has been used for it. The name *S. timorense* has also been used by Jansen (1953) to apply to a Timorese grass which is a "perennial, building large tufts". I used this application of the name (Simon 1978, 1980a, 1980b) to apply to a robust perennial with a fairly obtuse callus scar growing in a few localities of northern Australia. However, this plant has been shown to a variant of *Sorghum plumosum* (R.Br.)Beauv.

In attempting to resolve the correct application of the name *S. timorense* I examined material of Reinwardt 1356 (in L) used by Jansen to re-describe the species and which he considered to be the type. However, this material does not possess basal parts which makes it impossible to assess the habit of the plant. Furthermore, this specimen cannot be of any nomenclatural significance as when Buse published *Sorghum timorense* (Buse, 1857) he clearly based it on *Andropogon tropicus* Spreng. var. *timorensis* Kunth (Kunth, 1829), which is therefore the basionym of this name. The protologue of Kunth's name consists of a long description and a good illustration and as there is no mention of a type specimen, this illustration may be taken as the holotype according to Article 9.3 (International Code of Botanical Nomenclature 1978). The material from which the illustration was drawn is probably a specimen collected by Leschenault (in P) as it has a cross-reference to the illustration in Kunth's handwriting on the label and there is some resemblance between the annual base of the plant in the specimen with that of the illustration. It is therefore a good guide for interpreting which taxon *S. timorense* applies to.

Comparison of this Leschenault specimen with the holotype of the later *S. australiense* (Blake 17526) shows that this material is conspecific and thus the names should be treated as synonymous. Stated formally, the correct name for Downs Sorghum is as follows:

Sorghum timorense (Kunth) Buse in De Vriese, Pl. Ind. Bat. Orient 103 (1857); Jansen in *Reinwardtia* 2: 344 (1953).

Andropogon tropicus Spreng. var. *timorensis* Kunth, Rev. Gram. 1: t. 97 (1829). Type: t. 97 in Kunth, Rev. Gram 1 (1829).

Sorghum australiense Garber & Snyder, *Madrono* 11: 7 (1951). Type: Blake 17526 (BRI). Synon. nov.

ACKNOWLEDGEMENTS

I extend my thanks to Mr R.J. Henderson of the Queensland Herbarium for useful discussion concerning typification of *S. timorense*, Dr J.F. Veldkamp of the Rijksherbarium, Leiden, for supplying useful information and to the directors of Leiden and Paris for the loan of specimens.

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Further Comments on Herbaria

G.M. Chippendale
Canberra

Tony Orchard's "Plea for a sense of proportion" in Newsletter 31: 7-8 has, to me, more in it than the words. I sense the demands on an isolated professional who is expected to be all to everybody. I had a similar 12 years in NT Herbarium.

A taxonomist in isolation ... who would ever have thought this would be in a capital city? ... suffers greatly from his own efforts. He tries to keep up with collecting, curation, identification, and the more recent demanding duties and if he tries hard enough, his Employer thinks all is well. No help needed. No further staff required. Catch 22!! There aren't many of our taxonomists who can appreciate this situation, as most are in

larger institutions with professional colleagues and/or mentors, and curation is done by others ... even if there aren't enough others.

It is very true that our flora is poorly known, and the need for collections and curation over all of Australia is still paramount. General collecting seems to be one of the essential items (? luxury) which has diminished in our economic strangle. Moreover, even if the specimens could be collected, then they would only go on the backlog. I'm sure Tony appreciates what he calls the "more esoteric studies", but I agree that Australian botany is still in the building stage for our herbarium collections. Because we may have 1,000,000 or 2,000,000 or 3,000,000 specimens, this does not in any way imply that this is enough. Until more complete collections are made, particularly to fill in the great gaps, then much research is done albeit a trifle prematurely.

Time wasting requests are always a bugbear. Much of this will be saved if/when a national flora data bank is established. The great amount of time spent on EUCALIST to provide a data bank for *Eucalyptus* is just showing its value with the many requests for information ... none from State herbaria. Even so, I sensed in some places that this project was rather wasteful in time. However, it clearly shows that time spent on such today saves more time in future.

As we all know, Funds are the answer. How can we influence the Great Fund Disbursers? Working hard does not seem to be effective on its own. We need a Great Pusher, quite divorced from taxonomy, to be our advocate and impress one and all with our value and needs. Generally, taxonomists don't take time to be activists in fund-raising. Also, States compete with one another for some meagre handouts.

Then, of course, as I mentioned in Newsletter 23: 11-12, we need an Overseer (= Commonwealth) to look after taxonomy, so that he could send a task force to HO or NT to catch up with curation. Or, better still, just send money.

Some Observations on Gunn's Herbarium of Tasmanian Plants

L. Haegi

Botanic Gardens of Adelaide, Adelaide

Ronald Campbell Gunn (1808-1881), assiduous Tasmanian botanical collector and naturalist, was much praised by Joseph Hooker and William Harvey for the contribution his collections made to their works on Tasmanian land plants and algae respectively. Maiden (1909) gives a useful biographical account of Gunn, but I have been unable to locate any references corroborating my findings on Gunn's herbarium, made during revisionary work in Solanaceae.

As may be widely known, and as indicated by Burns & Skemp (1961) the numbers accompanying Gunn's herbarium specimens are intended as species numbers, not collection numbers. This is also pointed out by the late Dr Joyce Vickery in a typewritten commentary on Gunn material held in NSW. Her notes

are kept with the copy of Burns & Skemp (1961) in the Library of the Royal Botanic Gardens, Sydney and state in part: 'It was quickly realised that the various Gunn's collections that bore the same number were not in fact duplicates, as they bore different localities and dates, and, in some cases, were not necessarily even the same species or variety'.

The specimen Gunn 1992 in the Hooker herbarium (now in K) was cited by Miers (1853) in the protologue of Cyphanthera tasmanica. Further material with this number occurs in BM, HO and NSW. HO 7488 consists of three specimens, each apparently from different plants. One of these has a field label 'C. Stuart 93', another seems to match the material in K and BM and the third is another distinct collection. The NSW material under Gunn 1992 bears the field label 'CS 356', and it might be deduced that, like part of the HO specimen, it was collected by Charles Stuart (1802-1877) who is known to have botanized in Tasmania (Maiden 1909). The NSW material matches the K specimen, and although the latter bears no mention of Stuart, it would seem to be his collection 356. The same applies to some of the material from Miers' herbarium in BM; this piece was probably removed from the K specimen. It seems that Stuart's numbers may be serial collecting numbers. His collecting activities in Tasmania do not appear to be well documented.

The conclusion from this is that Gunn probably never himself collected Cyphanthera tasmanica and that the type material referred to under his number 1992 by Miers is in fact a Stuart collection (no. 356). Stuart 93, in HO, was apparently never seen by Miers, and is therefore not type material.

I have not searched the literature to ascertain whether similar situations with Gunn material have been encountered in the course of taxonomic revisionary work in other groups but would be interested to hear from anyone who can add further observations. This would help determine whether specimens collected by others accompanied Gunn's own specimens in his herbarium in general, something not necessarily obvious from the outset, as illustrated by the case described above.

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Nomenclatural Notes on Diplachne fusca (L.)P. Beauv. ex Roemer & Schultes

B.K. Simon

Queensland Herbarium

According to Hartley (1979) Diplachne reptatrix (L.)Druce is the correct scientific name for what is known in Australia as Brown Beetle Grass. This same conclusion was reached independently by me (Simon 1980a, 1980b) following Kerguelen (1977) who noted that Druce (1928) was the first author to have placed Festuca fusca L. with F. reptatrix L. under Diplachne reptatrix (L.)Druce. However, a year after Kerguelen's first paper he published another on the nomenclature of this grass (Kerguelen, 1978) in which he pointed out that the name Festuca fusca L. (Linnaeus, 1759) predated F. reptatrix (Linnaeus, 1762) (also drawn attention to by Bor, 1968) and that Munro in 1862 had actually placed them together and correctly chose Diplachne fusca (L.)P. Beauv.* for the species. Although Palisot de Beauvois (1812) was attributed by Munro as having made the combination, he did not in fact formally do so but merely suggested in the index to his work that Festuca fusca L. should be placed in the genus Diplachne. Moreover, of this fact he was not completely certain as he inserted a question mark after the epithet fusca. A number of modern authors have attributed the validation of the combination to Stapf (1900) but as Kerguelen (1978) pointed out the first valid combination was that of Roemer & Schultes (1817). Accepting that F. fusca and F. reptatrix are conspecific, the correct name and author citation of the species is Diplachne fusca (L.) P. Beauv. ex Roemer & Schultes.

There are two taxonomic problems associated with this grass, which according to some authors require the name to be changed yet again. A paper has been presented by Merrill (1933) in which the type of Poa malabarica L. has been stated to be conspecific with Diplachne fusca. Poa malabarica has been lectotypified by Merrill (1909) on a plate in Rheede (1703) but this appears to conflict with how Linnaean names should be typified (Stearn, 1957). The phrase-name of Poa malabarica L. in Species Plantarum ed. 1 does not have the reference to the Rheede plate immediately after it but underneath it, implying that the type is a specimen (87.31) in the Linnaean herbarium. In any case the Rheede plate in my opinion could be considered to be representative of the same taxon as the specimen. Both are very different from the type of Festuca fusca which has a much more condensed inflorescence and I find it difficult to understand how they have been placed together by various authors (Stapf, 1920; Merrill, 1933; Veldkamp, 1971). However, they are all eragrostoid despite the fact that the Linnaean herbarium specimen 87.31 has been assigned to Ottochloa or one of its earlier generic synonyms by a number of authors (Munro, 1862; Merrill 1909, 1933; Stapf, 1920; Henrard, 1931). Specimen 87.31 in the microfiche of the Linnaean Herbarium is not too clear but distinct enough to indicate that the spikelets each consist of a number of florets.

The genus Diplachne has at various times been considered congeneric with Leptochloa (Gray, 1848; Scribner, 1891; Hitchcock & Chase, 1951; Veldkamp

* The abbreviation Beauv. had been used for Palisot de Beauvois according to the first Draft Index of Author Abbreviations: Flowering Plants (undated) issued by Kew. However, the second Draft Index (1980) has for some reason changed the abbreviation to P. Beauv. or Pal. and applied the straight Beauv. to G.E.C. Beauvisage previously abbreviated by Beauvis.

1971), and the latter name has been taken up as correct when the two are combined; both names were published by Palisot de Beauvois in 1812. McNeill (1979), in a summary of the taxonomy and nomenclature of both genera in North America came to the conclusion that the features distinguishing these genera are clear-cut in the area under his consideration. The main difference is the small laterally compressed spikelets with keeled lemmas in Leptochloa compared with the larger more and or less terete spikelets with the lemmas rounded on the back in Diplachne. This distinction appears to hold throughout the geographic range of the two genera except in Australia where Leptochloa digitata (R.Br.) Domin has small spikelets with the lemmas rounded on the back. This together with the robust cane-like habit of the grass suggests a possible new generic status for the species if Diplachne and Leptochloa are to be regarded as distinct genera. Lazarides (1980) was of the opinion that L. digitata would be more correctly assigned to Diplachne on the basis of its grain shape. However, grain shape does not appear as good a diagnostic character as thought by McNeill when his key is applied outside North America. The East African D. caudata K. Schum. possesses a grain which is almost circular in cross-section, a character resembling that found in Leptochloa, yet in terms of general morphology it is a typical species of Diplachne.

The number of species of Diplachne in Australia has traditionally been stated as three (Gardner, 1952; Black, 1978; Simon 1978, 1980a, 1980b) but attention has been drawn to the close relationship between D. muelleri Benth. and D. fusca (Wheeler & Jacobs, 1979; Lazarides, 1981). Lazarides suggests that D. muelleri may only be a variant of D. fusca, bearing in mind the polymorphic nature of D. fusca (Phillips, 1974). Further work is required on this complex but a tentative solution may be to accept D. fusca and D. muelleri as being conspecific.

ACKNOWLEDGEMENTS

My thanks are extended to Mr R.J. Henderson of the Queensland Herbarium and to Dr J.F. Veldkamp of the Rijksherbarium, Leiden for assistance in researching the nomenclatural problems associated with this species.

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Dicksonia herbertii W. HILL
AN EARLIER NAME FOR D. YOUNGIAE C. MOORE EX BAKER

G.P. Guymer
Queensland Herbarium, Brisbane

Dicksonia herbertii was validly published in July 1874 by Walter Hill, in his 'Report of the Brisbane Botanic Garden', in Votes Proc. Legis. Ass. Queensland Sess. 1874. This predates the valid publication of D. youngiae C. Moore ex Baker in W.J. Hooker's & J.G. Baker's, 'Synopsis Filicum', ed. 2, p. 461 in October 1874, and is therefore the name that should be used for this species. Prior to this D. youngiae ('youngii') was listed as a nomen nudum in Proc. Royal Hort. Soc. 5: 66 (1865) and J. Smith's, 'Ferns British and Foreign' 291 (1866). The publication of C. Moore's manuscript name, 'D. youngiae', under D. squarrosa Swartz by Hooker & Baker (1868) is under Article 34 of ICBN 1978 a nomen invalidum.

S.T. Blake (1954) had previously drawn attention to the name D. herbertii, which he considered synonymous with D. youngiae, but erroneously stated that D. youngiae had priority.

The type of D. herbertii was collected on 28 November, 1873 during the ascent of Mt. Bellenden-Ker by W. Hill. Specimens of this collection are known to be lodged at K (Dr M. Crisp, pers. comm., photo BRI) and MEL.

Hill's 1874 report was dated 8 May and ordered by Parliament to be printed on 1 July, 1874. Mueller received his copy of this report in July or August 1874 as he cites the publication in fascicule 69 of his 'Fragmenta' (Vol. 8 p. 235) which was published in early September of that year.

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Letters to the Editor

BOTANICAL SOCIETY?

I would agree with Trevor Clifford that in many ways the ASBS (certainly in W.A.) has tended to function as a de facto botanical society. The suggestion that the ASBS be reconstituted as the Australian Botanical Society is therefore excellent, and deserves serious consideration by the various chapters.

Byron Lamont
Lecturer, School of Biology
Western Australian Institute of Technology

Abominable Epithets

COORANGOOLOO, WOOROONOORAN, DUBIUM-TRACEYI AND OTHERS OF THAT ILK

L. Pedley

Queensland Herbarium, Brisbane

The note on the plurality of family names (Newsletter 31) is a reminder that Principle V of the International Code of Botanical Nomenclature states that 'scientific names of taxonomic groups are treated as Latin regardless of their derivation', though the Code also allows specific epithets to be formed in an arbitrary manner. I am concerned that the principle is not being observed and that people who coin names, particularly names of species, seem not to be aware that others have to use them. Linnaeus who was not confined by any principle made things rather difficult by adopting some vernacular names which defy treatment as Latin. Acanthus negundo, Arundo bambos, Bromelia ananas and Caesalpinia sappan are a few examples.

Linnaeus certainly was not the last to use such names, but for many years Australian botany was remarkably free of them. Loranthus quandang Lindley is an early example. Mueller seems to have refrained from adopting any vernacular names at all, except for Ipomoea calobra which he published jointly with Walter Hill.

Then came F. Manson Bailey who had no qualms about adopting aboriginal names. He seemed especially fond of Mt Bellenden-Ker and its neighbourhood in local dialects. Consequently Australian botanists have to endure names such as Endiandra tooram, Solanum macoorai, Eugenia macoorai, Leptospermum wooroonooran and Wrightia millgar. Not only did Bailey's descendants carry on the office of Government Botanist but they also continued to give scientific names an Australian flavour. Elaeocarpus coorangooloo J.F. Bailey & C. White must surely be the botanical name least like Latin in Australian botanical literature. This was evidently White's only deviation from Latin and he never again resorted to such a barbarism.

The examples quoted are not Latin and no one is likely even to attempt to treat them as such. However, some epithets look as though they are Latin, but are not. Bailey, the elder, provides some examples - Calamus moti and Elaeocarpus eumundi. Was moti derived from (L.) motus or perhaps a Mr Mot was commemorated, and eumundi from (Gr) eu-, (L.) mundus? Both are aboriginal names. There are many others, such as Eugenia kuranda, Albizia toona (borrowed from Cedrela toona) and Ipomoea calobra. If Principle V is followed then these latter epithets will be treated as feminine adjectives, despite a recent author of such a name instructing that the epithet should not be declined. What would a Latinist make of Amorphophallus galbra. A misprint for glabra, which should be glabrum? No, galbra is another of Bailey's native names.

Surely words of Latin origin or words which can be treated as Latin are not so scarce that names such as these should still be published. Unfortunately they are still with us. Acacia wanyu, Goodenia iyouta and Hakea minyma are some recent ones. The practice is not confined to Australia.

Claoxylon nigtanig was published recently by an author whose competency in Latin cannot be questioned. In fact, he sometimes flaunts it.

I am urging that Latin be used, but at the same time, I would like to see it used sensibly and simply. Names of species go into general botanical literature. They are vehicles of communicating information and should not merely reflect the idiosyncrasies or the erudition of their authors. Acacia sibirica does not occur in Siberia; I fancy it was a drollery of Moore. As was Margaritaria dubium-traceyi. The plant may have been a puzzle to Tracey, but there is no need for everyone using its name to suffer for it. Magaritaria traceyi would surely have been enough. Hyphenated epithets are a nuisance. Austrobuxus montis-do, Baccaurea sanctae-crucis, Cyperus portae-tartari, Glochidion capitis-york, Croton capitis-york and C. montis-sclam, though good Latin, are awkward and Picris carolorum-henricorum is a name that can please only its perpetrator and perhaps one of the Carolus-Henricus's commemorated. Some names are ingenious but straightforward and acceptable while others are merely smart, in the derogatory sense. It is not immediately apparent that Ed. Volck and Kev. White are commemorated in the name Neorites kevediana, but it is obvious enough when explained. The person commemorated (S.F. Kajewski) in Claoxylon kaievskii is neither apparent nor easily explained. At least it is one degree better than caievscii which it could easily have been.

Instead of advocating the use of Latin perhaps I should be advocating that its use be discontinued. If names are not to be declined then it does not matter if they are Latin in form or not. Cajanus cajan presents no more difficulty than Acacia aneura. There could be a positive advantage in forming epithets in an arbitrary manner. Eucalyptus makim would be a more meaningful name in the context of Pryor & Johnson's classification than is E. paliformis.

Personal News

Dr Henry Connor retired on 4 August, 1982 as Director of Botany Division, Department of Scientific and Industrial Research, Christchurch (CHR). He will continue his research on grasses at the Centre for Resource Management, University of Canterbury, Ilam, Christchurch. Dr Warwick Harris, from Grasslands Division, D.S.I.R., Palmerston North, succeeds Henry Connor as Director of Botany Division.

Report on The Flora of Australia

The first of the taxonomic volumes, Volume 29, Solanaceae, was published on 27 July, 1982, somewhat later than we had expected. It would hardly be correct to say that it had a stormy passage through the press; rather, it was becalmed somewhere in the bureaucratic machine. The same fate has befallen Volume 8, which we now expect to see in print in October.

The cost of Volume 29 concerns us greatly, being twice as expensive as Volume 1 which was the same size. I have had several inquiries whether anything can be done to reduce it but the answer is, unfortunately, no. The Government determines a pricing formula for all AGPS publications and the Flora just has to comply with it. We are reviewing our publication processes with a view to keeping the cost of later volumes down.

A workshop was held on 10 and 11 August to begin the ground-work for the difficult task of preparing two volumes on Asteraceae, which are not due to be published for about 10 years.

The workshop identified a need to improve the collections of weedy species, which are poorly represented in all the major herbaria. It is well known that botanists have an in-built resistance to collecting weeds, but they are an important element of the Australian flora and they will be included in the Flora of Australia. As the distribution of weed species is of particular interest, it is worth collecting them everywhere you come across them.

I was informed at the workshop that underground parts are critical to the identification of many herbaceous Asteraceae and are especially poorly represented on herbarium sheets.

Alison McCusker
Assistant Director (Flora)

NEWS FROM THE BUREAU OF FLORA AND FAUNA

The last month has seen some important changes in the Bureau of Flora and Fauna. After a very uncomfortable year in the A.C.T.'s industrial area at Fyschwick, we have moved to more pleasant (and we hope more permanent) quarters at Acton House, between the Australian Academy of Science building and Lake Burley Griffin.

Our postal address remains the same, Box 1252 Canberra City 2601, but we have a new phone number - (062) 47 4877.

Dr Peter Bridgewater took up duty on 1 September, 1982 as Director of the Bureau and I returned to my position of Assistant Director (Flora) after an absence of nearly two and a half years. This increases the Flora Section staff from 3 to 4 members.

Alison McCusker

Chapter News

PERTH CHAPTER

The Perth Chapter of ASBS will host a meeting in conjunction with ANZAAS in Perth in May 1983. A preliminary timetable has listed the ASBS meeting for TUESDAY, 17TH MAY (evening meeting), a dinner jointly with ANZAAS Section 12 on WEDNESDAY 18TH MAY and an all-day ASBS symposium on THURSDAY 19TH MAY, 1983.

The symposium will be on the "Systematics and Biogeography of the Myrtaceae". It is hoped to have papers and posters on some or most of the following topics:

- morphological studies
- revisionary studies
- generic circumscription
- terminology of floral morphology
- distribution patterns
- evolutionary studies

In addition it is proposed to offer some short, one-day field trips to the Jarrah forest, east of Perth and heathland areas to the north.

The conveners would be pleased to receive any indication from members if a paper or poster could be presented.

N.G. Marchant
G.J. Keighery
Conveners

CANBERRA CHAPTER

Lately I have been guilty of applying Hacker's Law of Personnel to the Canberra Chapter. The Law states: "It is never clear just how many hands - or minds - are needed to carry out a particular process. Nevertheless, anyone having supervisory responsibility for the completion of the task will invariably protest that his staff is too small for the assignment".

We have indeed been overwhelmed by a situation of too few people too busy with the Flora of Australia and other commitments to have time to either organise or attend Chapter Meetings. This has resulted in somewhat erratic organisation. Nevertheless, Herbarium Australiense, the Bureau of Flora and Fauna and ASBS have all been organising seminars.

- * Robert Webster (Research Fellow UNU, visiting CANB) spoke about a practical application of the DELTA system (a descriptive language for taxonomy) using Digitaria.
- * Alex George (BFF) spoke about Gyrostemonaceae following preparation of the family for Vol. 8 of the Flora.
- * Helen Hewson (BFF) spoke about the Capparaceae following preparation of the family for Vol. 8 of the Flora.
- * Trevor Clifford (Qld Uni.) spoke about Liliaceae and classification at and above family level.

- * Jean-Michel Mascherpa (G) gave two talks: Automatic Identification of Plants: Present and Future and Computerisation at the Conservatoire et Jardin Botanique, Geneva.
- * Mike Lazarides (CANB) spoke about problems with Eragrostis following 12 months investigation of the genus at Kew.

Thus, in a combined way the taxonomic botanists in Canberra have been communicating even though ASBS has not always been the organising body.

Helen Hewson
Convener

MELBOURNE CHAPTER

At the meeting on 27 July, 1982 at Botany Department, University of Melbourne, Dr Trevor Clifford spoke on Liliaceae - a modern perspective.

Dr Trevor Whiffin, Botany Dept., LaTrobe University, was elected as convener, and Mr David Cooke, National Herbarium of Victoria, was elected as Secretary.

Barry Conn

FLOWERING PLANTS IN AUSTRALIA

Members of ASBS who helped contribute to this work will be disappointed to learn that production schedules of Messrs Rigby of Adelaide require the publication date to be delayed from November 1982 to May 1983.

The page proof layout and typeset seen by Hellmut Toelken and I should satisfy contributors. The line drawing and watercolour masters are also good. A dummy copy will be exhibited at the Frankfurt Book Fair this Autumn (northern) and indications suggest that marketing will be co-ordinated by Rigby in Europe and North America as well as Australasia.

It is a salutary experience to see how this piece of good old fashioned descriptive taxonomy, with keys and illustrations, has got hard-bitten, publishing executives worked into a frenzy of enthusiasm. Without the generosity and vision of contributors, the manuscript could not have been produced.

Brian Morley
The State Herbarium of Adelaide

WORKSHOP ON THE HISTORY OF SCIENCE IN AUSTRALIA

The workshop was held at the Australian Academy of Science, Canberra, on 24 and 25 August, 1982, with 93 delegates. Of these, 21 represent societies or institutions. Twenty nine papers were presented and a further six issued as abstracts. These covered such diverse fields as The History of the east Australian current, The interplay of public and private resources in the improvement of Australian wheats, Sir Joseph Banks, Engineering scientists in South Australia and Some archival sources for the history of science. Content and presentation varied from excellent to poor, and perhaps indicated the problems facing the editor of a volume or volumes on the history of science in Australia. In several disciplines, work is active in preparing historical accounts for publication during the next few years.

No clear results issued from the workshop. It will be the task of the Bicentennial History of Science Committee of the Academy to assess the ideas put forward, relate these to the Academy's aims for a publication, and recommend the disciplines and topics that might be covered. One, two or three volumes may be planned, for publication in 1987.

I suggested to the meeting that ASBS would be interested in contributing a chapter on botanical exploration in Australia, together with the development of botany (especially descriptive). There might also be a chapter of contributions on individuals or particular problems, projects or regions.

A number of speakers emphasised the need for the proper maintenance of archival material. I hope that all records, documents and correspondence relating to the foundation and conduct of the Australian Systematic Botany Society will be safely stored. Perhaps the Council could maintain a file recording the location of such papers.

A.S. George

EVOLUTION OF THE FLORA AND FAUNA OF ARID AUSTRALIA

ASBS members will welcome the news that the Proceedings of this Symposium are in the final stages of publication and will be available in mid-October.

The Symposium was co-sponsored by ASBS; many of its members attended and a number provided papers. The Society has also made a significant contribution to the costs of publication and will take a pro rata return on sales, which means that, provided the publication sells well, ASBS will recoup its outlay and more.

There is much in the volume to interest systematic botanists and there are two sections devoted to papers on plants. A general section covers environmental adaptations to aridity (Anderson), modes of regeneration of the flora of the arid zone (Maconochie), adaptation to fire in arid zone shrubs (Hodgkinson & Griffin) and mallee eucalypts (Noble),

cytogenetic systems (Barlow) and Pollination and breeding systems (Keighery). A second section deals with the biogeography, origins and/or evolution of particular plant groups, mainly based on current or recently completed revisionary studies: Triodia and Plectrachne (Jacobs), Atriplex (Parr-Smith), Acacia (Maslin & Hopper), Leptosema (Crisp), Euphorbia and Chamaesyce (Hassall), Dodonaea (West), Solanum (Symon), Scrophulariaceae (Barker), Compositae sub-tribe Gnaphalinae (Short) and Calotis (Stace).

The concluding review of the Symposium by Professor Smith-White presents a critical account of the processes of evolution, the nature of desert adaptations and the environmental and biotic history of the region.

With the aim of placing the publication within the reach of the individual, the book is to be sold at substantially less than the price commercial publishers would generally have set. The volume promises to follow the Flora of Central Australia as a second successful publishing venture of the Society, which is to be congratulated on its efforts to support the production of minimum-cost, high-standard publications.

Evolution of the Flora and Fauna of Arid Australia. Edited by W.R. Barker and P.J.M. Greenslade, 392 + viii pp., 265 x 210 mm, section sewn and bound in a multicolour laminated cover, typeset in two columns of 9 pt type with copious illustrations and maps. Published by Peacock Publications, 207 Glen Osmond Road Frewville, in association with ASBS and ANZAAS, S.A. Div. Price A\$32.95 plus \$4.00 postage and handling, available in mid-October direct from Peacock Publications (address above). Orders being taken now.

L. Haegi
Adelaide Botanic Gardens

Recent Publications

The following are some details of recent publications on the Papua New Guinea flora which may be of interest to ASBS members.

'The Ferns and Fern Allies of Papua New Guinea' by R.J. Johns and A. Bellamy. Parts 1-5 (1979). 35 pages, illustrated. Part 1: A checklist of the genera; Parkeriaceae (2); Matoniaceae (3); Cheiropleuriaceae (4); Dipteridaceae (5). Parts 6-12 (1981) Ophioglossaceae (6); Marattiaceae (7); Osmundaceae (8); Psilotaceae (9); Marsileaceae (10); Salviniaceae (11); Azollaceae (12). Included are keys to genera within each family, generic descriptions, notes on ecology and distribution (with distribution maps). 68 pages, illustrated.

'Mangroves of the Port Moresby Region' by D.G. Frodin and G.J. Leach. Biology Dept. Occasional Paper No. 3 revised edition. (1981) 76 pages, illustrated. A simple key to the species found in the Port Moresby region followed by descriptions and illustrations of each species.

'Ferns-parts 1-5' are available from the Librarian, PNG Forestry College, Box 92, Bulolo, PNG at K2.50 each plus postage. 'Ferns-Parts 6-12' available from the Librarian, PNG University of Technology, Box 793, Lae as Research Report R48-81. The Biology Department Occasional Papers can be purchased from the University Bookshop, Box 320 University Post Office, PNG. No. 3 is K2.40, No. 8 is K1.00

G. Leach
Port Moresby

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial statements. This includes not only sales and purchases but also expenses and income. The document provides a detailed list of items that should be tracked, such as inventory levels, accounts payable, and accounts receivable. It also outlines the procedures for reconciling these accounts and identifying any discrepancies.

The second part of the document focuses on the classification of expenses. It explains how to distinguish between capital expenditures and operating expenses, and how to allocate costs to different departments or projects. This section includes a table with columns for expense type, amount, and department. The document also discusses the importance of proper documentation for all expenses, including receipts and invoices, and provides guidelines for how to organize and store these documents.

The third part of the document addresses the issue of budgeting and cost control. It describes how to develop a realistic budget based on historical data and market conditions, and how to monitor actual performance against the budget. The document provides a step-by-step process for identifying areas of overspending and implementing corrective actions. It also discusses the role of management in setting cost targets and holding departments accountable for their performance.

The final part of the document covers the topic of financial reporting and analysis. It explains how to prepare financial statements that are clear, concise, and easy to understand. It also discusses the importance of providing meaningful commentary on the numbers, and how to use financial ratios and trends to identify areas of opportunity and risk. The document concludes with a summary of the key points discussed and a call to action for the reader to implement the best practices outlined in the document.

Contents

Editorial	3
<u>Oxalis</u> in Australia. <u>J. Thompson</u>	4
<u>Sorghum timorense</u> (Kunth) Buse - A new name for <u>S. australiense</u> Garber & Snyder. <u>B.K. Simon</u>	6
Further Comments on Herbaria. <u>G.M. Chippendale</u>	7
Some Observations on Gunn's Herbarium of Tasmanian Plants. <u>L. Haegi</u>	8
Nomenclatural Notes on <u>Diplachne fusca</u> (L.) P. Beauv. ex Roemer & Schultes. <u>B.K. Simon</u>	10
<u>Dicksonia herbertii</u> W. Hill - An earlier name for <u>D. youngiae</u> C. Moore ex Baker. <u>G.P. Guymer</u>	13
Letters to the Editor	13
Abominable Epithets - <u>coorangooloo</u> , <u>wooroonooran</u> , <u>dubium-traceyi</u> and others of that ilk. <u>L. Pedley</u>	14
Report on the 'Flora of Australia'	16
News from the Bureau of Flora and Fauna	16
Chapter News	17
'Flowering Plants in Australia' - update	18
Workshop on the History of Science in Australia	19
'Evolution of the Flora and Fauna of Arid Australia' - a preview. <u>L. Haegi</u>	19
Recent Publications	20
