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S.G.A.P. Fern Study Group

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LEADER: Peter Hind, 41 Miller Street, Mt. Druitt 2770
 SECRETARY: Moreen Woollett, 3 Currawang Place, Como West 2226
 HON. TREASURER: Margaret Olde, 138 Fowler Road, Illawong 2234
 SPORE BANK: Jenny Thompson, 2 Albion Place, Engadine 2233

ABOUT THAT BOOK:

1. Name - AUSTRALIAN FERNS - 1 The first volume in a series on ferns.
2. Objective - To produce a series of books, available at low cost for the beginner but with a content of continuing interest for those already growing ferns.
 There are a number of books on ferns the most recent being a major work retailing at \$100.00. Others are not aimed at the beginner. A series of books published at intervals over the years will enable the accumulation of knowledge, updated as necessary, to the extent that all Australian ferns will be described. The series will become the only complete reference to our ferns and at the same time, fulfill the objective, a series of books for beginners.
3. Authors - The credits for authorship are given to The Fern Study Group. There are many contributors a number in a major way, some of these having no affiliations with The Fern Study Group.
3. Presentation - It is proposed that:
 - (a) The series is aimed at the beginner although some articles have a more technical content.
 - (b) The series is to be produced in a cheap format similar to that used for field guides and at min. cost.
 - (c) At this stage it is envisaged that there will be a new book in the series every two years although there are numerous requests for it to appear annually.
 - (d) The emphasis will be on the presentation of ferns with full page colour plates on most right hand pages of the book with simple descriptions on the page opposite followed by cultivation details for all climates.
 - (e) The last article in the book will break with this principle and present a review of a complete genus with descriptions and a key to the species. It will be based upon the most recent scientific papers on that genus but will be presented in as simple a form as possible. This series of articles will be a valuable reference for all and could become the major reference to the fern flora.
4. Ownership of the book will be by S.G.A.P. N.S.W. Ltd., all royalties going to this society.
5. Retail price is expected to be \$11.99 per copy.
 Probable publication date of Part 1, May 1988.

The foregoing is an extract taken from a report prepared by Bill Payne of the Publishing Committee of S.G.A.P. (NSW) Limited and is dated November 1987. We will keep you informed of progress towards publication.

Recent new records and new species of ferns from Australia

The following new names for Australia have been published recently. According to my count, these records bring the number of ferns known from Australia to slightly more than 450 species and varieties (with at least 8 still undescribed).

NEW GENUS:

Coveniella Tindale (1986). Sole species: *C. poecilophlebia* (Hook.) Tindale, a new combination based on *Polypodium poecilophlebium* Hook. (more recently known as *Dryopteris poecilophlebia*).

NEW SPECIES:

Amphineuron queenslandicum Holttum (1986a). Similar to *A. opulentum* (Kaulf.) Holttum, but differs in the depth of lobing &c.

Chingia australis Holttum (1986a), the first species of this genus recorded in Australia.

Cyathea exilis Holttum (1986b). David Jones reported that this tree-fern is a rheophyte, growing in swamps with Pandanus and Calamus (Lawyer vine). Buds at the base of the trunk provide a means of regeneration if the main trunk dies.

Diplazium queenslandicum Tindale (1986), tree-fern like in growth; closely related to *D. assimile* but much larger in all respects, with a trunk to 1m tall, and fronds up to 2m long.

Hypolepis glandulifera Brownsey & Chinnock (1987): this name replaces the misapplied name *H. punctata* for material from Australia. Outside Australia *H. glandulifera* is found from India through Asia to Papua New Guinea and New Caledonia.

Lastreopsis tinaroensis Tindale (1986). A finely dissected species which is becoming popular with enthusiasts.

L. walleri Tindale (1986), similar to *L. tenera* but distinguished in part by its more robust short-creeping rhizome up to 2.5 cm broad.

NEW VARIETY:

Christella dentata (Forssk.) Brownsey & Jermy var. *caespitosa* Holttum (1986a); possesses an erect caudex with tufted fronds. Discovered by R.J. Chinnock and P.J. Brownsey in N Qld.

CHANGES TO NOMENCLATURE OR STATUS (Brownsey and Chinnock, 1987)

Hypolepis amaurorhachis (Kunze) Hook. replaces *H. australis* and *H. subantarctica* (the latter recently described from New Zealand.)

H. dicksonioides (Endl.) Hook.: Norfolk Island, N.Z. and the Kermadecs. Apparently introduced to the Mt Lofty ranges in S.A.

H. elegans Carruth.: known from 3 widely separate mainland collections and from Lord Howe Island. Also occurs in the Pacific region from New Ireland to Fiji and Samoa.

NEW RECORDS (Jones & Gray, 1986)

Ctenopteris repandula Kunz, Atherton tableland.
Gleichenia milnei Baker, recorded from Cape York.
Dicranopteris linearis var. *altissima* Holttum, Daintree area.
Ophioglossum intermedium J.D. Hook., from northern N.T.
O. lineare Schlechter & Brause; recent collections from Arnhem Land by David Jones have provided confirmation that this taxon is worthy of specific status.

REFERENCES:

- P.J. Brownsey & R.J. Chinnock (1987) A taxonomic revision of the Australian species of *Hypolepis*. J. Adelaide Bot. Gard. 10(1): 1-30
Holttum R.E. (1986a) New Thelypteroid ferns in Queensland. Kew Bull. 41(3): 518
Holttum R.E. (1986b) A new tree-fern in northern Queensland. Kew Bull. 41(3): 532
Jones D.L. and Gray B. (1986) New fern records for Australia. *Austrobaileya* 2(3): 284-6
Tindale M.D. (1986) A new genus and three new species of Pteridophytes from North Eastern Queensland. Gardens' Bulletin, Singapore 39(2): 169-75.

P.D. Bostock, Botany Dept, University of Qld, St Lucia 4067.

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NATIONAL HERBARIUM OF NEW SOUTH WALES

ROYAL BOTANIC GARDENS, SYDNEY

IDENTIFICATION OF PLANT SPECIMENS

Persons forwarding specimens for identification should follow the directions given below as far as possible:

1. All specimens sent should be as perfect as possible. They should consist of a small branch or portion of the stem, 8-12 inches long, showing the leaves in position together with flowers and/or fruits. Owing to the tremendous number of plant species, it is difficult, and sometimes impossible, to determine specimens from leaves alone. In the case of small plants and grasses, the whole plant should be sent, with the exception of the terrestrial, or ground orchids when only the parts above ground should be collected. With small ferns or fern-allies, the rhizome (or root-like structure) is required, while in the tree-ferns the scales or hairs at the base of the stalk of the frond are essential for identification.
2. Specimens should be numbered and a second set of specimens with corresponding numbers should be kept. The correspondent will be supplied with the list of numbered names and other information desired, but the specimens will not be turned, except under special circumstances.
3. The date and place of collection should be given, as well as details of the habit of growth, height, flower-colour, habitat, type of soil, and, in the case of trees, a description of the bark.
4. It is desirable to press the specimens between newspaper sheets and to place them between two sheets of cardboard when forwarding. Specimens should not be wrapped in plastic or damp paper unless living specimens have been particularly requested.
5. Not more than 12 specimens will be named in one collection, except under special circumstances.
6. If rare specimens are sent, or specimens of which more material is required for the National Herbarium, the correspondent is expected to supply the material in return for the information received.
7. All specimens forwarded for identification should be addressed to the Director and Chief Botanist, National Herbarium, Royal Botanic Gardens, Sydney, and a letter should be sent separately in regard to them.

BURRENDONG SHADE AREA

Stage Two of the Shade Area at the Burrendong Arboretum near Wellington is now a reality. The new structure has been built alongside the existing 1/3rd acre brush covered shade area which was completed in 1980 and is now full to over-flowing with approximately 90 species of our native ferns. The structure has been built across a gully and consists of steel cables and wire mesh covering a further one acre. It is suspended on top of steel posts some of which are 9 m. high and the whole has been covered with Melaleuca brush.

The structure and the landscaping are impressive and outstanding monuments to the inspiration, determination and toil of Peter Althofer in particular and to Jack Harris, the Arboretum Association and others who planned, worked on or contributed to this fine project.

Over the period 6th to 8th November 1987 the working bee organized by our Group brought together 15 volunteers who assisted Peter Althofer and David and Moira Brown (David is the recently appointed Curator at the Arboretum) plant in the Stage Two area approximately 300 ferns, numerous cycads and plants as well as numerous other rainforest plants. Much more planting is required but Stage Two is started and it will become increasingly exciting to visit.

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MORE ABOUT BURRENDONG - A CRISIS IN ADMINISTRATION

The following is the text of a circular letter forwarded by Mr. J.A. Harris, Chairman of the Burrendong Arboretum Association, to friends and supporters of the Arboretum.

October seems to have brought all our worries about control of the Arboretum to a head.

The crunch has come with the arrival of the new Curator to take up his position, and the insistence of the National Parks & Wildlife Service (NPWS) Officer-in-Charge (OIC), Bathurst that the Curator reports directly to the Burrendong State Recreation Area (BSRA) Trust.

We are at present trying to encourage the BSRA Trust to maintain some independence and formalize the position of the Burrendong Arboretum Association (BAA) Executive Committee as its Arboretum Sub-committee.

The Trust should then delegate to its Arboretum Sub-committee authority to manage the Arboretum on its behalf and so recognize and formalize the *de facto* system of management of the Arboretum that has existed over the past 22 years.

We are not confident that the Trust will support this as the OIC threatens financial implications if the Trust does not accept the procedure he has outlined.

The OIC puts a lot of emphasis on a set of Management Guidelines produced at the eleventh hour by the NPWS for the information of the applicants for the new Curator position. The Guidelines were produced by the NPWS without prior consultation with the BSRA Trust or the BAA. The OIC claims the Royal Botanic Gardens (RBG), Sydney, was involved during the preparation of the Guidelines, however the RBG denies having had any serious input.

These Guidelines were presented to the Trust at the one meeting of the Trust at which the representative of the BAA was absent and were forced through on the threat of delaying the appointment of a new Curator.

This is the culmination of NPWS manoeuvring to get control of and limit the aims of the Arboretum and generally to downgrade it. It has been uncommunicative, dilatory and devious and the BAA is not prepared to hand over control of the Burrendong Arboretum to the Service.

The BAA has a submission before the Minister for Lands seeking the establishment of a separate trust to manage the Arboretum under the control of the Department of Lands.

We shall need all the support and influence of our members and friends to obtain this move.

NEWS OF SYDNEY REGION GET-TOGETHERS

REPORT ON MEETING 30 AUGUST 1987

Study of the genus Polystichum was featured and the following notes are based on discussion led by Peter.

Of the five Australian species (there are approximately 175 species world-wide) the two commonest in the Sydney Region are P. australiense and P. proliferum. The other species local to the Sydney area is P. formosum (meaning beautiful). The following summarises the principal distinguishing features:

<u>Feature</u>	<u>P. australiense</u>	<u>P. formosum</u>	<u>P. proliferum</u>
Proliferous buds near apex main rachis	yes	no	yes
Scales on rhizome and lower stipe	dull papery brown	papery brown	glossy dark brown with pale borders
Fronds size to	120 cm	70 cm	1m
Pinnules with apical spine	longer than marginal ones	not longer than marginal ones	as long as marginal ones
Habitat	rainforests or edge of gullys, close to water if in open	rainforests, on mountain slopes often near waterfalls	forests in grassy conditions often in exposed areas.

Note if attempting to grow these ferns in drier situations, red spider can be a serious pest.

P. fallax is the other of the genus on the Australian mainland and is found in Northern N.S.W., mainly on the western slopes and in Queensland. The triangular shaped fronds are bipinnate to tripinnate and the pinnae are fine and much divided. Although reputedly hardy in cultivation plants are difficult to obtain and none of the 17 members present at the meeting had it growing. It is known that Ray Best had it growing successfully under shade cloth in his collection at Kenthurst.

P. whiteleggei from Lord How Island has very blunt apices and hardly any apical spines. As noticed on the potted specimen brought to the meeting, another feature is the long bare portion of stipe.

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REPORT ON WILDFLOWER SPECTACULAR: 19/20 SEPTEMBER 1987

Undoubtedly the highlight of S.G.A.P. activities in Sydney, the annual Wildflower Spectacular was again held at the Castle Hill Showground. As well as assisting with the staging and conduct of the Exhibition in a variety of other ways, our members had charge of the fern sales area and supplied many ferns for the rainforest display and assisted with the set-up, pull-down and clear-up. Thank you all members who contributed time, effort and in some cases, more than a little expense, towards making the Exhibition highly successful. A special vote of thanks is due to Bea and Roy Duncan who travelled from Newcastle and toiled constantly for the Exhibition for the entire period.

The quality and diversity of the displays and exhibits this year were outstanding and the Spectacular was a great advertisement for the Society although ticket sales fell short of the record number achieved last year -

round 11,800 compared with 14,000 in 1986. These numbers exclude children and volunteer workers who were admitted free. There was an almost total clearance of ferns bought in for sale, the handful left over being put aside for planting at Burrendong.

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REPORT ON MEETING 31 OCTOBER 1987

As a trial this meeting was held on a Saturday and fourteen members attended in perfect Spring weather. The venue was the home of Pat Kenyon and Ted Newman, a lovely quite spot set among tall eucalypts and surrounded by bushland reserves.

The study dealt with the genus Dicksonia and its differences from Cyathea. All members being familiar with D. antarctica attention was focused on D. youngiai, the Australian species. Peter brought along two D. youngiai growing in large pots, one from Northern N.S.W. and the other from North Queensland. The fronds on the Queensland plant appeared to be much softer and finer than those on the other plant. An examination of the reddish-brown hairs on the stipe bases readily showed an identification feature as they were bristly, stiff and about twice as long as the soft brown hairs of D. antarctica.

Other differences discussed but of course not apparent from study of the two potted plants included D. youngiai trunk much slimmer reaching 20 cm diameter and the spore of D. youngiai about twice as large as on D. antarctica.

D. youngiai is notoriously difficult to grow well in Sydney. Although some members recalled one fine specimen grown by Ray Best on his property at Kenthurst, it seems that D. youngiai quickly becomes stressed by hot winds and shade house conditions seem necessary for it to be grown well with confidence in the Sydney Region. Peter mentioned seeing a colony of D. youngiai, it is noted for its manner of producing plantlets on the trunks, growing well near Sandy Cape on the N.S.W. north coast. This location is far from its usually moist sheltered and shady habitat, but was in a swampy soak and was protected from the wind by high sand hills.

D. herbertii is the other Dicksonia species endemic to Australia. This species is confined to North Queensland high altitude areas and is slender and somewhat similar in size to D. youngiai but does not produce plantlets on its trunk.

An examination of the sample stipe bases brought to the meeting quickly revealed an obvious difference between Cyathea and Dicksonia species. Dicksonia has hairs and no scales whereas Cyathea species all have scales.

Another noteworthy identification feature is that Dicksonia fronds are dimorphic, the sterile fronds being flat and broad while the fertile fronds are narrower, the more deeply lobed margins being reflexed to form an indusium.

On Cyathea species you look straight at the spore which is not obscured by the folded margins of the frond.

The rather controversial division of the genus Cyathea into five separate genera of which two, Alsophila and Sphaeropteris occur in Australia, was mentioned. An article on the proposed splitting of the Australian members of Cyathea appeared in "Australian Plants" Vol. 14, No. 110, March 1987.

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Deadline for Copy

We would welcome articles from our members for our newsletter. If you have hints or have been a successful fern grower and propagator, share your knowledge with us by sending your ideas and methods, or you may have been on an outing to a fern glade that would be of interest. Any inquiries connected with the next issue can be made to the Secretary - phone 528.4881. Material for publication should be in the hands of the Secretary by no later than 15th February 1988.

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FORTHCOMING EVENTS

SUNDAY 6th DECEMBER 1987: Christmas Function Meeting

Commences at 11 a.m. A brief meeting followed by our end of year get-together. Bring own lunch and perhaps something appropriate to the season for sharing at afternoon tea. Tea and coffee available, B.Y.O. other. Each member please bring a small gift---a plant or other garden item \$2 to \$3 for pooling. Venue - Jenny Thompson's home at 2 Albion Place, Engadine. Any enquiries 'phone 520.5039.

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SATURDAY 20th FEBRUARY 1988: Outing Kareela

Venue: Joseph Banks Native Plant Reserve, Manooka Place, Kareela. If coming from the north along Princes Highway turn right at Bates Drive traffic lights. Proceed along Bates Drive passing front and side of Reserve. Turn left at Alpita Street, then left into Garnet Road, then second street on left is Manooka Place. Proceed to end of Manooka Place to Reserve's rear entrance and car parking area. During the day we hope to remove the few remaining exotic ferns from the Reserve and replace with native species. Meet from 12 noon, if bringing lunch, barbecue facilities are available. Activity to commence at 1.30 p.m.

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SUNDAY 28th March 1988: Meeting Blacktown

Meet from 10 a.m. at home of Tess and Les Taylor, 4 Prospect Street, Blacktown. Meeting starts promptly at 11 a.m. On this occasion Peter is to show slides and discuss ferns that he saw on his recent trip to New Zealand. Bring lunch and afternoon tea. Enquiries 'phone 621.5840.

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SATURDAY 23rd April 1988: Outing Mt. Tomah

Visit to recently opened botanical garden at Mt. Tomah and nearby ferny gully. Details next Newsletter.

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THE FRAGRANT FERN

For those who have tried and failed to catch the faint aroma which has earned Microsorium scandens its common name, try drying the frond and crushing it. This way the aroma is much more pronounced.

M. scandens and M. diversifolium (Kangaroo Fern) are epiphytes which cling to rocks and tree trunks in moist shady conditions and are at home in rainforests of South Eastern Australia. Both these Microsorium species make attractive basket plants.

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RED CARPET

A warm welcome is extended to the following new members of our Study Group:

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S.E. QLD. REPORT

The Fern Study display at the Queensland Region S.G.A.P. Flower Show, Kelvin Grove High School in September, once again, looked wonderful and created great interest. Thankyou Cliff Ritchie and team of helpers.

The intrepid party of fernies and friends who followed Peter Bostock down the gully in the White Swamp area were well rewarded. It was a trip to another world. The day was misty, the gully was deep and boulder lined. The boulders were covered in moss. Ferns and orchids were abundant. A sighting of Lastreopsis acuminata is worth recording; also, our meeting with the rarely seen Rain Forest Dragon - Goniocephalus spinipes. Back at the top Botrychium australe was sighted in open grassland.

1988 CALENDAR

SUNDAY 6th March 1988 9.30 a.m. STUDY: Pellea, Doryopteris, Paraceterach and Pleurosorus. Venue: Gwen and Ray Norris', 32 Oakridge Street, Burbank.

SUNDAY 10th April 1988 9.30 a.m. meet Joyce and Alan Wards, Fahey Road, Mt. Glorious for excursion to Joyner's Ridge Road

Irene Cullen

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SUBSCRIPTIONS FOR 1988

Subscription renewal notices are being issued with this Newsletter covering the 1988 calendar year. Subscription to the Fern Study Group falls due in January each year. The annual fee is \$3. If you are a financial member of the Society for Growing Australian Plants or the Western Australian Wildflower Society, payment of the \$3 fee makes you a member of the Fern Study Group. Alternatively payment of the \$3 subscription by persons who are not members of either of the Societies mentioned provides an entitlement to the Quarterly issues of the Newsletter only.

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