VIREYA VINE

ISSUE # 9 FEBRUARY 1986
AN INTERNATIONAL GROUP OF "VIREYA BUFFS" - PUBLISHED BY THE EDUCATION COMMITTEE OF THE RHODODENDRON SPECIES FOUNDATION

NOTE--NOTE-- This issue of the VIREYA VINE is dedicated to the memory of John Womersley, Botanical Consultant and worker on Vireya Rhododendrons. The Vireya world lost a good friend and worker when John passed on last September. John was a Australian who spent many years working with plants in Papua New Guinea. We are including in this VINE "Part I: Geographical Distribution, of the Census of the Species Rhododendron, Sect. Vireya" that John sent to me (E. White Smith) in August 1985 to use in the VV. We think that this is important work and hope that someone else will take up the job where he left off. (Notice 'Part II and Part III' in the cover letter)

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From Leslie Riggall South Africa
Dear Vireya Vine, November 11, 1985

Undoubtedly the greatest problem for Vireya growers is raising the seedlings, and after some very disappointing results we seem to have found the answer to this problem.

I have made some crosses onto several species, using pollen of R. lowii which I collected in Borneo. Using various composts of peat and peat mixed with sand and soil, results were bad except in the case of R. laetum x lowii. We have about 90 strong seedlings from this, several inches high. Germination was usually very good but in some trays every seedling perished. Unfortunately, I did not discover the right medium until after my small supply of the precious R. lowii pollen was exhausted. This was when I decided to try rotten wood. The cross was R. brookeanum var gracile x zoelleri and half of the seed was sown on crushed pine bark as part of the experiment.

The seed parent is an interesting plant, growing a few feet above ground in a camphor tree which has several large branches which emanate from that point. It grows well and has been pruned a little several times. It has produced evenly shaped trusses of pure vermilion flowers unspoiled by a yellow centre. It is self-sterile and has never produced any seed unless hand-pollinated with another species. When pollinated with R. lowii pollen from a gorgeous truss of twenty-two large golden-yellow flowers, twice the usual number, we germinated hundreds of seedlings but only nine have survived, and we watch over them anxiously we imagine all kinds of wonderful flowers which might reward our efforts.

However, to return to our experiment, germination on both media was excellent, but since then the crushed bark has proved to be incomparably superior. On the rotten wood the seedlings have made hardly any growth and are a pale color. On past experience of weak seedlings I expect to lose a very high percentage of these.

On the crushed bark they are growing fast and have a healthy green color. We are delighted with them and expect a very high percentage of strong survivors - in fact our problem eventually will be raising of so many plants. To all the many growers who have suffered heavy losses of seedling, including Walter Mills, I recommend a trial with crushed pine bark.

We are very careful to provide perfect drainage, and have always used a bottom layer of pine pieces, about one to two inches across, as tree bark is said to inhibit phytophthora (root rot). We germinate under mist, not glass covers (which may cause fungal growth through lack of air movement),
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and keep them under mist until they are growing away. The mist definitely hastens germination, the seeds start to swell immediately. We spray with fungicide and a very week solutions of organic fertilizers. From observation of Vireya rhododendrons in their habitat, I believe that chemicals would do more harm than good, and that perfect drainage is more important than nutrition.

For this reason and because of our wet summer (a combination of warmth and wetness being the ideal condition for phytophthora), we always plant out on raised beds, or little mounds of free-draining material such as bark and coarse compost. We plant on slopes wherever possible and to prevent washing away we enclose the mounds with short logs to contain the compost. The only other assistance we give is a mulch of loose material such as dead leaves and twigs and we never fertilize them.

I noticed R. lowii on your list of species in cultivation, I do not have this and would like to correspond with anyone who has it.

Yours sincerely,
Leslie Riggall
Fern Valley Botanic Garden
Igwababa Road
Kloof 3610, South Africa

Using crushed bark is a new idea to me. It would be helpful to know the size of the particles of bark used and the species of pine. Its the first report of germinating under mist and certainly worth a try. How was Leslie able to saved pollen collected in Borneo for so long a time? (Fran)

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Fred Renich California, USA
Dear V.V, November 3, 1985

I really enjoy reading the V.V. and have picked up many helpful hints from the other Viners.

My climate is very unique here in Fillmore as it has plenty of sunshine for the plants and flower flower bud development but I must provide shade to keep from literally burning the plants to a crisp.

I am 25 miles from the ocean which at times can seem like 100. If we are under low pressure influence, we get the ocean breeze and the climate is ideal. If the desert and high pressure is the deciding factor, we can have temps as high as 120 degrees and at times very strong Santa Ana winds off the desert bringing humidity down to 10 % or less.

These winds can be very destructive, up to 50 miles an hour or more. They tend to be very gusty in nature and are what makes our fall fi[illegible] season so devastating.

One thing to be said for our area here is the citrus fruits are in there glory and really thrive on this climate.

I am growing my Vireyas in containers and raised beds in a mixture of 1/3 course peat, 1/3 small fir bark and 1/3 perlite. I am fertilizing every 2 weeks with a weak solution of chelated iron and commercial acid fertilizer - 1/2 teaspoon to the gallon.

My problems with the desert heat and low humidity are doublely compounded by a water problem, probably unique to any other grower.

Our water here in Fillmore is extremely alkaline having high concentrations of calcium and sodium in it. If any other Viners out there have any good ideas how I can cure this problem, please let me know.

To keep my collection happy, I truck in all my water from a spring on the other side of our valley. The south side of the valley is all sandstone and thus the alkalinity and other pollutants are all filtered out of this water.

When our rainy season comes, I try to collect as much rain water as I can. Even with all this work, I still find growing these plants very rewarding and when one of my plants blooms, its all worthwhile.

Please accept my check for $10 to help with your expenses.
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Fred Renich
390 Foothill Dr.
Fillmore, Ca. 93015

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From H. W. Lewis Victoria, Australia

Dear Vireya Vine,

First of all, I must pay my subscription which must be overdue, so I have enclosed a bank draft for $10 U.S.

It is very interesting to read the various comments from Vireya growers from around the world and it is heart warming to know that many people are now growing members of this magnificent section of the Rhododendron genus.

I have been growing vireyas for sometime now and have had little problems in their management, except in growing seedlings on. After they have been pinched out into flats, some go ahead quite well whilst others stagnate and ultimately die. The only fertilizer they receive is a foliar spray of fish emulsion at half strength - roughly at forth nightly intervals.

Maybe the Rhododendron Species Foundation is not the proper place top launch plant hunting expeditions to known Vireya areas, to obtain both seeds and cuttings but I believe something needs to be done by somebody along the line of the Fairmount Venture, where interested folks could subscribe to the cost etc. I realize great caution would be necessary before going into some areas on account of their political instability. However, I hope I have left the idea with you viners and something may happen.

Yours sincerely,
H.W. Lewis
7 Burroughs Rd.
Balwyn, VIC
Australia 3103

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From M.D. Cullinane New Zealand

Dear Renee Hill, (Editor RSF Newsletter) November 19, 1985

I am enclosing $10 U.S.for a yearly subscription to the Vireya Vine as advised in your newsletter Vol. 9 No. 4. (Rhododendron Species Foundation newsletter)

I have a collection of 36 different Vireya Rhododendrons and I am going to Papua New Guinea in August next year to collect some more.

Yours faithfully,
M.D. Cullinane
P.O.Box 8
Russell
New Zealand

Ed Note; We print this note from Mr. Cullinane to point out that there are people going into the wild areas to look for Vireya Rhododendrons. Graham Smith from Pukeiti New Zealand is taking a group to New Guinea in August 1986 to look at plants (Rhododendrons of course).

From Dick Cavender Oregon USA

Dear V.V, November 29, 1985

It was a great surprise to see my letter of May 31 reprinted but a pleasant one. I have thinned out a number of extras and gotten to know several very nice people in the process. It has been nice to obtain some of the plants on my want list as well.

At present we have a couple of inches of snow, a wind of about 20 mph and a temp. of 22 so I will use the time to report the latest. We have about 6 plants of R. laetum in bloom now that have been nice for Thanksgiving. This is still one of my favorite yellows. R. hellwigii bloomed for the

first time with 3 large buds, 4 or 5 to the truss and very fragrant. I put R. laetum and R. laetum x christianae onto this and will send seed, if any, to Esther Berry. R. longiflorum, a nice clear pink, bloomed for the first time also.

A long awaited bud on a plant labeled R. superbum, C.W. 2700 m, Finisterre Mt., P.N.G. by Paul Kores finally opened and was a real surprise. Instead of a fragrant white it is a dark waxy red with no fragrance. I have 5 or 6 of these plants. Tom Tatum grew the plants from seed and they all look like the same plant but it sure is not R. superbum. The flower is tubular-funnel shaped, shiny waxy deep red, with 8 petals. The leaves are obovate and covered with brown scales on both sides when young. I do not know when this seed was collected but it was a number of years ago as the plants are fair sized. Does anyone else grow plants from this collection and have the bloomed them?

Another first time bloom and one that does not look like its supposed parents is a cross of (laetum x phaeopeplum) x (laetum x Konori). This is just opening but will be a solid orange-red with 10-12 to a truss. Flowers somewhat smaller than laetum. Looks like it will be nice. I saw a picture at the Western Regional of a plant called herklots #5 that I would like to have. I seem to remember Tom Tatum having it at one time but think he lost it. It is white with brown scales and shaped like R. scabridibracteum. Ver unusual. Any one growing it?

Nice to see Stan Eversoles photos of R. goodenoughii in the last A.R.S. Journal. I have 3 or 4 plants in bud so it will be interesting to see what they are like. E. White mentioned that he is trying to get a complete inventory together. I am in the process of buying a computer and when I learn to use it I hope to get all my plants into it. Will send a copy when I do. I have lots of different things and am always willing to sell or TRADE.

Thought it might be time to send more money so am enclosing a check for $10. Keep up the good work.

Dick Cavender
15920 S.W. Oberst Ln.
Sherwood, Ore. 97140

We have two photos of Herklots 5. Art Dome photo taken in Australia has 4 flowers and a straight tube. J.P Evans photo has 8 flowers and tube is slightly bent. Looks like a selected form of R. scabridibracteum. Would be a good addition to any collection. Let us know more about it? (Fran R.)

From Graham Snell, Victoria, Australia
Dear VV, October 12, 1985

Some comments on your list of species. (from VV8 ed.) There are obviously some listed that are not grown in Australia to my knowledge, and it might help to tract down desired material if a list was published with initials of where they are being grown, eg Aust, Wa, Ed, just to cover the three that you mentioned.

Species that I would like to track down from your list include; R. abietifolium, citrinum, durionifolium, exuberans, himantodes, keditii, lineare, neiuwenhuisii, praetervisum, rubellum, salicifolium, stapfianum, vaccinioides, verticillatum, gaultheriifolium, planicostatum, and villosum. I suspect that most are in Edinburgh as they are largely N. Borneo species. (yes these are from a list from Edinburgh and I do have the list with who has the plants in the dBASE II computer program. I must note though that I have asked for people to send me the name of species plants that they grow so that I can make the list of plants in cultivation more complete. If a person needs the list with owners, write to us and I will send it on. E. White ed.)

Are you sure R. snellae exists? I suspect that it originates from Clive Smith's miss reading my bad writing of Snellae. It would be nice to

have a plant named after you, if you deserved it, but I certainly do not consider that I do, and I have not seen it listed anywhere else!

Incidentally you listed 125 species, inc snellae; while we grow 107 of them here in Australia at present. Just think of how many hybrids must be possible from that lot.

Recently we had two interesting flowering's, the first being R. saxifragoides, from a plant we collected in P.N.G. in 1981. I believe this to be the first time it has flowered in Australia. We have also just flowered R. gardenia here in Melbourne for the first time, although it has flowered for several years in Wollongong N.S.W. Our bloom had 24 large, perfumed, creamy florets in the truss, which does not correspond to the Sleumer descriptions at all.

Graham L.S. Snell
970 Mountain Highway
Boronia, Victoria
Australia, 3155

If R. snellae does not exist, I shall remove it from the list. I may wait for a bit to see what other people say though. (what does Clive Smith know about this?) I think that we must get with the people at Edinburgh and get ...e plants into the USA, NZ and Australia. I have had R. vaccinioides for ...ars having gotten a cutting from Frank Doleshy. It is a bit hard to keep alive and has bloomed once. (no big deal, the bloom) I have written to the people who publish the Himalayan Plant Journal in Kalimpong India and asked him to keep a eye open for the Vireya species that grow in the Sikkim - Himalayan area. They may do some work with Rhododendron in 1986. Nice small Journal. (address: Primulaceae Books, Abhijit Villa, B.P.O. Ecchey, Kalimpong- 734301, Dist. Darjeeling ((W.B.), India.) E. White

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From Michael Cullinane New Zealand
Dear Vireya Vine January 9, 1986

Five years ago, my wife bought me R. laetum x zoelleri No. 10 and thus started my obsession. I now have thirty six different vireyas, eleven of which are species and the remainder hybrids. I started growning them under high shade and found by accident that they fared much better in full sun. They are now all in full sun, which produces many more flowers and makes the growth habit more compact, by shorter inter-nodal length and shooting from the base. The garden site is 35.15 south, fifty metres above sea level and two hundred mettes from the sea. Annual rainfall would average 1200 mm. Winter temperatures range from 2 C to 16 C and summer ranges from 14 C to ... C, with not many days of high humidity.

The Vireyas are planted in heavy clay, with attention paid to drainage. They are also heavily mulched, as are our alpine rhododendrons and azaleas. I have found they rather resent fertilizer and do not care for plentiful watering. Once established they grow about 40 cm per year on average and flower almost continually. I can depend on eight being in flower at any given time. Pink Delight, the Veitch hybrid from the 1860's has been flowering for over a one year. R. jasminiflorum flowers regularly every 2 or 3 months. R. lochae, the Australian native, does not appear to be remontant but its one flowering is for a lengthy period. All is not sweetness and light, however. R christianae is one I have trouble with. I have lost two and the present one would not win any prizes for plant thrift. I have kept records of their growth, flowerings etc. and over the years, amongst the hybrids, a pattern of performance is emerging. Our proximity to the sea does not appear to worry them, or the 70 odd rhododendrons and azales. Several times a year we get storms coming in from the Pacific with the attendant salt spray making our house windows somewhat opaque defoliating the roses, but genus rhododendron, from macabeanum to nervulosum are unimpressed.

I would like to receive some suggestions concerning R. christianae,
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and also retusum which may help. I am currently setting up a quarantine house in order to import more Vireyas.

Yours faithfully,
Michael Cullinane
P.O Box 8
Russell, New Zealand

Anyboby who can growth Vireyas in clay must have a green thumb. The amount of water required seems to depend on type of soil or mixture. Also there is a great difference of opinion on the amount of fertilizer Vireyas will tolerate. I have also found the more sun light Vireya receive the better the flowering. However, up our way too much sun can burn the leaves. Our winter days are quite short and additional would probably improve both growth and flowering. Other opinions? R. christianae can be hard to grow but this is the first report of problems with R retusum. Let us hear about other experiences with these two.

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We recently, received three pictures from Dick Cavender of a plant belonging to Tom Tatum. The pictures were taken about 6 or 7 years ago. The plant was labeleb "Herklots #5". The plant is similar to R leptanthum, R beyerinckianum and R. phaeochitum but has yellow flowers. An outstandin plant but Dick does not beleive Tom is now growing it. It does not look like the plant Art took a photo of. Will the real "Herlocks #5" please step forward.

Stan Eversole has bloomed what appears to be a dwarf form of R. goodenoughii. He says the leaves, stature and flowers are smaller than type. The plant is labled Cruttwell 1410. Is anyone else growing a plant under this label and if so do you know what it is?

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VIREYA VINE
RHODODENDRON SPECIES FOUNDATION
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U.S.A.

A CENSUS OF THE SPECIES OF RHODODENDRON, sect. VIREYA,

pt. I: GEOGRAPHICAL DISTRIBUTION

For some years I have been interested in preparing a census of the species of Rhododendron classified in the section Vireya. While Vireya is predominantly found in the area loosely termed Malesia, extending from peninsular Malaysia to the Solomon Islands and north east Australia, there are 9 described species occuring in an arc from Sikkim and northern India eastward to Vietnam and Formosa. Literature on these latter species is scattered and not easy of access. This has now been brought together and I believe that the attached census includes all those currently accepted species of sect. Vireya, at least in the literature to Dec. 1984.

Dr. Herman Sleumer has provided us with an excellent basic classification of the Malesian Vireya culminating in his treatment of the family Ericaceae in Flora Malesiana ser. I, vol. 6, pt. 4 of which the section devoted to Rhododendron has been available as a separate volume. Sleumer used a number system for each species and this has been retained in the present Census. Another important paper is Sleumer (1960) in which all species of sect. Vireya then available have been placed in keys. Extra-Malesian species were not numbered. In addition there are a few new species described in Sastry et al. (1969), Woods (1978) and Argent (1982). The authors of these new species usually indicated relationships and it has been possible to check the descriptions through Sleumer's keys leading to the allocation of A (sometimes also B & C) numbers into the Census. There are two species R. vaccinoides and R. asperulum which preceed the numbered species in subsect. Euvireya, these have been numbered A1 and A2.

Recent authors have reduced a small number of the species accepted by Sleumer into the synonomy or sub-specific status of other species. To avoid numerical gaps I have included all species accepted by Sleumer (1966) with an indication of the change of status of the name.

The geographic regions used in this Census are those delineated on the attached map of what I am calling VIREYA - LAND. Boundaries used have no political relevance.

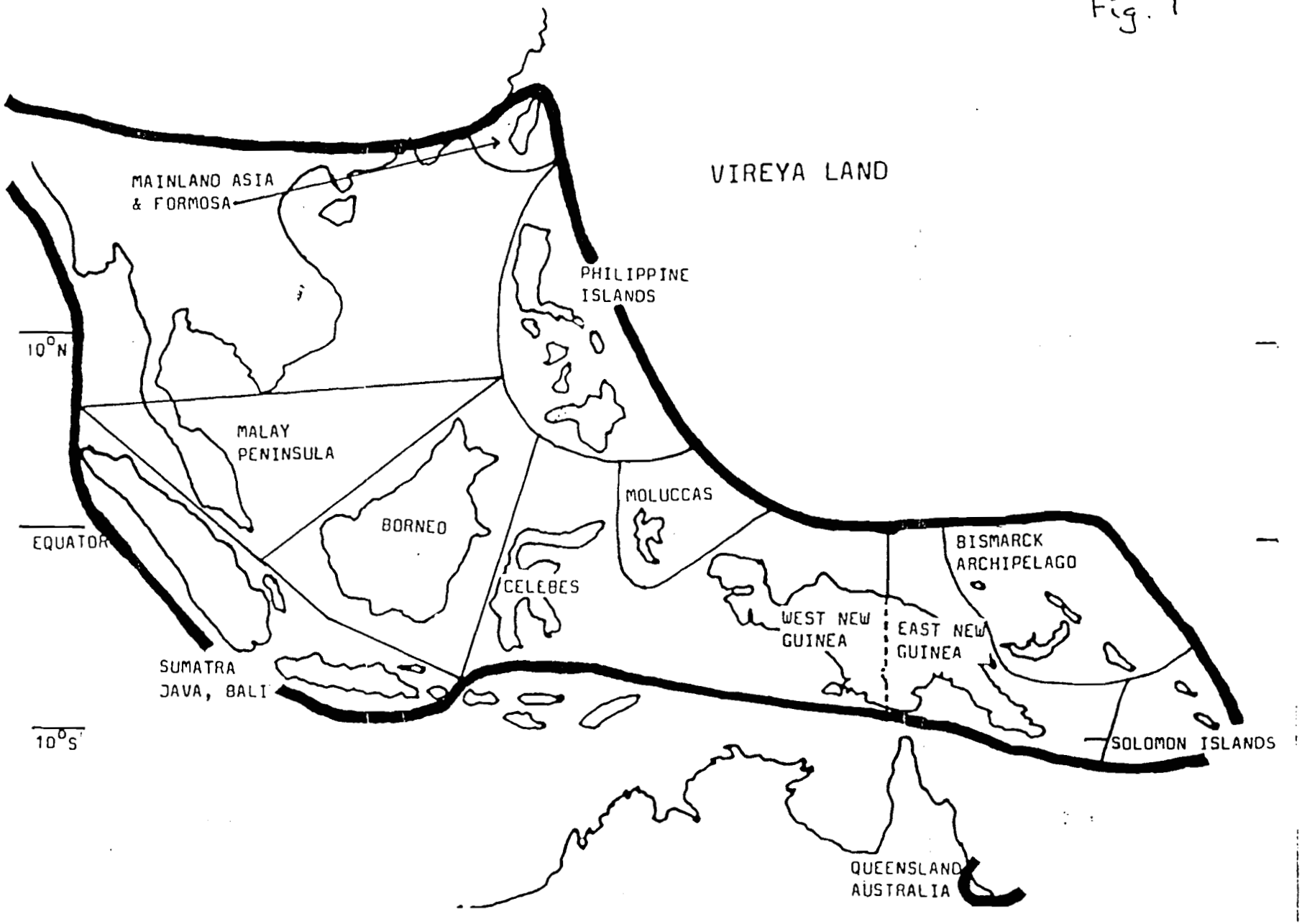
The bibliography includes all relevant recent papers as well as a few older ones which have not been readily available. Copies of all papers are now held in my library and photocopies can be supplied.

Part II of the Census will be an alphabetically arranged listing of the species names to numbers. This will be compiled in early 1986.

Part III will require an alphabetically arranged index to the many names which have been reduced into synonomy over the years. This will require full citation of the original publication data together with the accepted species now including this taxon and the authors involved. No completion date can be forecast for this part.

John S. Womersley,
August 1985.

Fig. 1


VIREYA LAND
MAINLAND ASIA
& FORMOSA
PHILIPPINE
ISLANDS
10°N
MALAY
PENINSULA
BORNEO
MOLUCCAS
EQUATOR
CELEBES
BISMARCK
ARCHIPELAGO
WEST NEW
GUINEA
EAST NEW
GUINEA
SUMATRA
JAVA, BALI
10°S
SOLOMON ISLANDS
QUEENSLAND
AUSTRALIA

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	RHODODENDRON SPECIES PSEUDOVIREYA	ASIA MAINLAND & FORMOSA	MALAY PENINSULA	BORNEO	SUMATRA JAVA BALI	CELEBES	MOLUCCAS	PHILIPPINE ISLANDS	WEST NEW GUINEA	EAST NEW GUINEA	BISMARCK/ SOLOMONS/ AUSTRALIA
A1	VACCINOIDES	* SIKKIM TIBET									
A2	ASPERULUM	* TIBET									
1	RETUSUM				*						
2	TAXOIDES								*		
2A	INSCULPTUM	* TIBET									
2B	EMERGINATUM	* YUNNAN									
2C	SANTA-PAUII	* INDIA N.E.F.A.									
3	PULLEANUM								*	*	
4	NUMMATUM								*	*	
5	GAULTHERIIFOLIUM								*	*	
6	OREITES								*		
7	EROSIPETALUM								*		
7A	DETZNERIANUM									*	
8	HAMELIIFLORUM								*		
9	LINDAUEANUM					*			*	*	
9A	CAPELLAE									*	
10	SPATHULATUM		*								
11	SARUWAGEDICUM									*	
12	INVASORIUM = INCONSPICUUM									*	
13	PERAKENSE		*								
13A	BUXOIDES			* SARAWAK							
14	VANDERBILTIANUM				*						
14A	KAWAKAMI	* FORMOSA									
15	SEIMUNDII		*								
16	SCORTECHINII		*								
16A	SORORIUM	* TONKIN									
17	ADINOPHYLLUM				*						
18	CYRTOPHYLLUM								*		
19	ERICOIDES			* SABAH							
20	NANOPHYTON					*					
21	SCHIZOSTIGMA								*		
22	MELIPHAGIDUM						*				
23	VINKII								*		
24	CILIILOBUM								*		
25	QUADRASIANUM			* SABAH		*		*			

	RHODODENDRON SPECIES	ASIA MAINLAND & FORMOSA	MALAY PENINSULA	BORNEO	SUMATRA JAVA BALI	CELEBES	MOLUCCAS	PHILIPPINE ISLANDS	WEST NEW GUINEA	EAST NEW GUINEA	BISMARCK/ SOLOMONS/ AUSTRALIA
	SIPHONOVIREYA										
26	HASSEMAE								*		
27	CINCHONIFLORUM								*		
28	PROTANDRUM								*		
29	INUNDATUM								*		
30	AGATHODAEMONIS								*	*	
31	HERZOGII								*	*	
32	INCOMMODUM									*	
	PHAEOVIREYA										
33	EYMAE					*					
34	REVOLUTUM								*		
35	EXTRORSUM									*	
36	HELLWIGII									*	
37	SUPERBUM									*	
38	PRAINEANUM								*		
39	STELLIGERUM								*	*	
40	NERIIFOLIUM									*	
41	HOOGLANDII									*	
41A	CALIGINIS									*	
42	RARUM									*	
42A	NEOBRITTANICUM										* BISMARCK
43	DELICATULUM								*	*	
44	BRYOPHILUM								*		
46	ASPERRIMUM								*		
47	DIELSIANUM									*	
48	STOLLEANUM									*	
49	PSILANTHUM					*					
50	PHAEOCHITUM									*	
51	BEYERINCKIANUM								*	*	
52	LEPTANTHUM									*	
53	WARIANUM									*	
54	GARDENIA								*	*	
55	THAUMASIANTHUM								*		
56	KONORI								*	*	
57	PHAEOPEPLUM								*		
58	OPULENTUM								*		
58A	HYACINTHOSMUM									*	
59	SPONDYLOPHYLLUM									*	
60	MELANTHERUM									*	
61	CYATHEICOLUM									*	
62	ASPERUM								*		
63	RHODOCHROUM								*		

	RHODODENDRON SPECIES	ASIA MAINLAND & FORMOSA	MALAY PENINSULA	BORNEO	SUMATRA JAVA BALI	CELEBES	MOLUCCAS	PHILIPPINE ISLANDS	WEST NEW GUINEA	EAST NEW GUINEA	BISMARCK/ SOLOMONS/ AUSTRALIA
64	GILLIARDII									*	
65	BULLIFOLIUM								*		
66	SOLITARIUM									*	
67	SCHODDEI									*	
68	PHAEOCHRISTUM								*		
69	HAEMATOPHTHALMUM								*		
70	PHAEOPS								*		
71	TRUNCICOLUM									*	
72	RAPPARDII								*		
73	DIANTHOSMUM								*		
74	RUBELLUM									*	
	MALAYOVIREYA										
75	HIMANTODES			* SABAH SARAWAK KALIMANTAN							
76	VINICOLOR				* SUMATRA						
77	DURIONIFOLIUM			* SABAH BRUNEI SARAWAK KALIMANTAN							
78	FALLACINUM			* SABAH							
79	APOANUM							*			
80	MALAYANUM			*		*					
80A	MICROMALAYANUM			* SARAWAK							
81	NORTONIAE							*			
82	ACUMINATUM			* SABAH							
83	FORTUNANS			* KALIMANTAN							
84	LINEARE			* SARAWAK							
85	OBSCURUM		*								
86	VARIOLOSUM			* SABAH SARAWAK							
87	WILHELMINAE				* JAVA						
88	HYBRIDOGENUM		*								
	ALBOVIREYA										
89	ALBUM				* JAVA						
90	AEQUABILE				* SUMATRA						
91	PROLIFERUM								*		
92	ZOLLINGERI				* JAVA	*		*			

	RHODODENDRON SPECIES	ASIA MAINLAND & FORMOSA	MALAY PENINSULA	BORNEO	SUMATRA JAVA BALI	CELEBES	MOLUCCAS	PHILIPPINE ISLANDS	WEST NEW GUINEA	EAST NEW GUINEA	BISMARCK/ SOLOMONS/ AUSTRALIA
93	LAGUNCULICARPUM					*					
94	YELLIOTII									*	
95	CORREOIDES								*		
96	COMPTUM									*	
97	LAMPONGUM				* SUMATRA						
98	CERNUUM				* SUMATRA						
99	PUDORINUM					*					
100	ARENICOLUM					*					
101	GIULIANETTII									*	
102	VERSTEEGII								*		
	SOLENOVIREYA										
103	MULTINERVIUM									*	
104	NATALICIUM									*	
105	RUTTENII						*				
106	RHODOSALPINX								*		
107	STAPFIANUM			* SABAH							
108	CHAMAEPITYS			* SARAWAK							
109	MACROSIPHON								*	*	
110	CARRINGTONIAE									*	
111	CARSTENENSE								*		
112	SYRINGOIDEUM								*		
113	MAIUS								*	*	
114	CRUTWELLII									*	
114A	HARTLEYI									*	
115	ARCHBOLDIANUM									*	
116	PLEIANTHUM									*	
116A	SEARLEANUM									*	
117	OLIGANTHUM									*	
118	CARRII									*	
119	ARMITII									*	
120	TUBA									*	
121	RHODOLEUCUM									*	
122	PUBITUBUM					*					
123	PSEUDOTRICHANTHUM			* KALIMANTAN							
124	AMABILE					*					
125	RADIANS					*					
126	OREADUM								*		
127	CINERASCENS								*		
128	BRACHYPODARIUM								*		

	RHODODENDRON SPECIES	ASIA MAINLAND & FORMOSA	MALAY PENINSULA	BORNEO	SUMATRA JAVA BALI	CELEBES	MOLUCCAS	PHILIPPINE ISLANDS	WEST NEW GUINEA	EAST NEW GUINEA	BISMARCK/ SOLOMONS/ AUSTRALIA
129	GOODENOUGHII									*	
130	PNEUMONANTHUM			* SARAWAK KALIMANTAN							
131	ORBICULATUM			* SARAWAK BRUNEI SABAH							
132	EDANOI							*			
133	LORANTHIFLORUM										* BISMARCK SOLOMONS
134	RETRORSIPILUM									*	
135	SUBPACIFICUM = LORANTHIFLORUM										
136	JASMINIFLORUM		*		* SUMATRA			*			
	EUVIREYA										
	ser. Linnaeoidea										
137	ANAGALLIFLORUM								*	*	* BISMARK
137A	RUBINEIFLORUM									*	
138	WOMERSLEYI									*	
139	GRACILENTUM									*	
140	CAESPITOSUM								*		
141	MICROPHYLLUM								*		
142	PUSILLUM								*		
143	MUSCICOLA								*		
144	PARVULUM								*		
145	OXYCOCCOIDES								*		
146	DISTERIGMOIDES								*		
147	COELORUM								*	*	
	ser. Saxifragoidea										
148	SAXIFRAGOIDES								*	*	
	ser. Taxifolia										
149	TAXIFOLIUM							*			
	ser. Stenophylla										
150	STENOPHYLLUM			* SABAH							
151	MYRSINITES								*		
152	SUBULOSUM								*		
153	PURPUREIFLORUM								*	*	
	ser. Citrina										
154	CITRINUM				* SUMATRA JAVA						

	RHODODENDRON SPECIES	ASIA MAINLAND & FORMOSA	MALAY PENINSULA	BORNEO	SUMATRA JAVA BALI	CELEBES	MOLUCCAS	PHILIPPINE ISLANDS	WEST NEW GUINEA	EAST NEW GUINEA	BISMARCK/ SOLOMONS/ AUSTRALIA
	ser. Buxifolia										
155	FREY-WYSSLINGII				* SUMATRA						
155A	BURTII			* SARAWAK							
156	PUBIGERMEN				* SUMATRA						
157	VIDALII							*			
157A	WHITEHEADII							*			
158	HATAMENSE								*		
159	VANDEURSENII = VITISIDAEA										
160	CORNU BOVIS								*		
161	PLANECOSTATUM			* SABAH							
162	BAGOBONUM							*			
163	NIEUWENHUISII			* BRUNEI KALIMANTAN							
164	PSEUDOBUXIFOLIUM					*					
165	COMMONAE									*	
166	ABIETIFOLIUM			* SABAH							
167	SHEILAE			* SABAH							
168	PAUCIFLORUM		*								
169	PSAMMOGENES								*		
170	VITIS-IDAEA									*	
171	RHODOSTOMUM									*	
172	ALTERNANS					*					
173	LEPTOMORPHUM					*					
173A	STEVENSIANUM									*	
174	PSEUDONITENS = COMMONAE										
175	HELODES								*		
176	PAPUANUM								*		
177	ACROPHILUM							*			
178	BANGHAMIORUM				* SUMATRA						
179	RIPLEYI				* SUMATRA						
180	ALTICOLUM									*	
181	PYRRHOPHORUM				* SUMATRA						
182	LUTEOSQUAMATUM									*	
183	INCONSPICUUM								*	*	
184	LAMII								*		
185	PORPHYRANTHES								*		
186	SIMULANS								*		

	RHODODENDRON SPECIES	ASIA MAINLAND & FORMOSA	MALAY PENINSULA	BORNEO	SUMATRA JAVA BALI	CELEBES	MOLUCCAS	PHILIPPINE ISLANDS	WEST NEW GUINEA	EAST NEW GUINEA	BISMARCK/ SOLOMONS/ AUSTRALIA
187	ULTIMUM								*		
188	BRASSII								*		
189	SUBULIFERUM								*		
190	SCARLATINUM					*					
191	ATROPURPUREUM									*	
192	BUXIFOLIUM			* SABAH							
193	WRIGHTIANUM								*	*	
194	SUBCRENULATUM								*		
195	RUBROBRACTEATUM								*		
196	CALOSANTHES								*		
	ser. Javanica										
197	VERTICILLATUM			* SARAWAK							
198	RUGOSUM			* SABAH							
198A	CORIIFOLIUM			* SABAH							
199	KEDITII			* SABAH SARAWAK							
199A	YONGII			* SARAWAK							
200	CHRISTI									*	
201	CURVIFLORUM								*		
202	VILLOSULUM								*		
203	GLABRIFLORUM								*		
204	PACHYCARPON									*	
205	CELEBICUM					*					
206	SAYERI									*	
207	PACHYSTIGMA								*		
208	ANGULATUM								*		
209	LOERZINGII				* JAVA						
210	IMPRESSOPUNCTATUM						*				
211	XANTHOPETALUM							*			
212	HIRTOLEPIDOTUM								*		
213	PSEUDOMURUDENSE			* KALIMANTAN							
214	SERANICUM						*				
215	LOBOENSE							*			
216	WILLIAMSII							*			
217	ROBINSONII		*								
218	BARILEPIDOTUM				* SUMATRA						
219	MULTICOLOR				* SUMATRA						
220	BREVITUBUM			* KALIMANTAN							

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221	SESSILIFOLIUM				* SUMATRA						
222	BECCARII				* SUMATRA						
223	KEMULENSE			* KALIMANTAN							
224	MOULTONII = R.JAVANICUM ssp. MOULTONII										
225	JAVANICUM		*	* SARAWAK	* JAVA BALI SUMATRA	*					
226	PERPLEXUM				* SUMATRA						
227	CRASSIFOLIUM			* SARAWAK SABAH							
228	RHODOPUS					*				*	
229	BAENITZIANUM								*	*	
230	ENGLERIANUM								*	*	
231	WENTIANUM								*		
232	CUSPIDELLUM										
233	COMMUTATUM = R. LONGIFLORUM var. SUBCORDATUM										
234	SUBCORDATUM = R. LONGIFLORUM var. SUBCORDATUM										
235	VANVUURENII					*					
236	LEPTOBRACHION					*				*	
237	SCHLECHTERI								*		
238	LEUCOGIGAS					*					
239	LOMPOHENSE						*				
240	BURUENSE					*					
241	BLOEMBERGENII								*	*	
242	MACGREGORIAE										
242A	CHEVALIERI	* ANNAM							*		
243	ROSENDAHLII									*	
244	COMPARIBLE										* AUSTRALIA
244A	LOCHAE									*	* SOLOMONS
245	LURALUENSE								*		
246	FLAVOVIRIDE									*	
247	CHRISTIANAE								*		
248	LAETUM								*	*	
249	SCABRIDIBRACTEUM										
250	LONGIFLORUM			* SARAWAK	* SUMATRA						
251	POLYANTHEMUM			* SABAH							
252	KOCHII										
253	BREVIPES										

	RHODODENDRON SPECIES	ASIA MAINLAND & FORMOSA	MALAY PENINSULA	BORNEO	SUMATRA JAVA BALI	CELEBES	MOLUCCAS	PHILIPPINE ISLANDS	WEST NEW GUINEA	EAST NEW GUINEA	BISMARCK/ SOLOMONS/ AUSTRALIA
254	AURIGERANUM									*	
255	ZOELLERI						*		*	*	
256	MAXWELLII			* SABAH							
257	NERVULOSUM			* SABAH							
258	SALICIFOLIUM			* SARAWAK							
259	LANCEOLATUM			* SARAWAK							
260	SUMATRANUM				* SUMATRA						
261	ARFAKIANUM								*		
262	FUCHSII			* SABAH							
263	IMPOSITUM					*					
264	LEYTENSE							*			
265	BRACHYGYNUM							*			
266	MINDANAENSE							*			
257	RENSCHIANUM				* FLORES						
268	CULMINICOLUM								*	*	
268A	BLACKII									*	
268B	PRAETERVISUM			* SABAH							
269	MOLLIANUM								*		
270	POREMENSE					*					
271	STRESEMANNII						*				
272	RETIVENIUM			* SABAH							
273	LOWII			* SABAH							
274	INTRANERVATUM			* SARAWAK SABAH							
275	TOXOPEI						*				
275A	TRIUMPHANS	* ANNAM									
276	BROOKEANUM = R. JAVANICUM ssp. BROOKEANUM										