

INFORME DE VIAJE A AUSTRALIA  
(Mayo 6-22, 1979)

Y A TAILANDIA  
(Mayo 23-Junio 6, 1979)

R. Schultze-Kraft

1. OBJETIVOS:

- a) Asistir al Simposio Internacional sobre Recursos Genéticos de Plantas Forrajeras en Townsville.
- b) Conocer los avances en investigación en pastos tropicales en Australia.
- c) Participar como representante de América Tropical en un Grupo de Trabajo del IBPGR para discutir las prioridades mundiales relacionadas con colección y preservación de recursos genéticos de plantas forrajeras, en Townsville.
- d) Realizar un viaje de colección de germoplasma nativo de especies de Desmodium en Tailandia.

2. ACTIVIDADES:

A. Australia.

En cuanto a las actividades en Australia, ellas no difieren esencialmente de las del Dr. Luis E. Tergas (véase su Informe de Viaje a Australia). Con dos excepciones:

- a) Participación en un Grupo ad hoc de Trabajo convocado por el IBPGR y que se reunió el fin de semana de Mayo 12-13. La agenda tratada fue:
  - Criterios para fijar prioridades.
  - Prioridades para coleccionar plantas forrajeras.
  - Prioridades para conservar germoplasma.
  - Prioridades para cooperación internacional.
  - Recomendaciones al IBPGR.

Fue la primera vez que un grupo a nivel mundial se reunió para discutir sobre los tópicos arriba mencionados. Se llegó a conclusiones importantes, se identificaron regiones y especies prioritarias y se aclaró una serie de conceptos y responsabilidades, y de ser aceptadas las recomendaciones, las plantas

forrajeras para el IBPGR subirán de prioridad, que en comparación con otros cultivos, hasta ahora ha sido relativamente baja.

- b) Viaje de colección de germoplasma nativo de leguminosas, especialmente de Desmodium heterocarpon en Queensland, Australia.

El fin de semana de Mayo 19-20 fue aprovechado para realizar un viaje de colección entre Brisbane y Gladstone, en compañía de los Dres. Albert E. Kretschmer Jr. de la Universidad de Florida, ARC, Fort Pierce, e Ignacio Porzecanski de EMBRAPA-CNPQC, Campo Grande. Se decidió hacer este viaje después de registrar una serie de sitios de colección de muestras botánicas de Desmodium heterocarpon en el herbario del Queensland Department of Primary Industries. En total se lograron coleccionar 8 muestras de D. heterocarpon, 5 de D. varians, 1 de D. aff. heterophyllum, 6 de Glycine sp., 1 de Zornia sp. y 1 de Hardenbergia violacea.

#### B. Tailandia.

El viaje de colección de germoplasma nativo de Desmodium en Tailandia estuvo muy productivo, gracias a la excelente cooperación brindada por los colegas de ese país (véase "Trip Report" adjunto).

#### A. Australia.

En cuanto a las actividades en Australia, el fin de semana de Mayo 19-20 fue aprovechado para realizar un viaje de colección entre Brisbane y Gladstone, en compañía de los Dres. Albert E. Kretschmer Jr. de la Universidad de Florida, ARC, Fort Pierce, e Ignacio Porzecanski de EMBRAPA-CNPQC, Campo Grande. Se decidió hacer este viaje después de registrar una serie de sitios de colección de muestras botánicas de Desmodium heterocarpon en el herbario del Queensland Department of Primary Industries. En total se lograron coleccionar 8 muestras de D. heterocarpon, 5 de D. varians, 1 de D. aff. heterophyllum, 6 de Glycine sp., 1 de Zornia sp. y 1 de Hardenbergia violacea.

- a) Participación en el Grupo de Trabajo de la FAO sobre el IBPGR, en el fin de semana de Mayo 12-13. La agenda fue la siguiente:

- Críticas a las prioridades.
- Prioridades de la FAO y del IBPGR.
- Informes de los países.
- Informes de los países.
- Recomendaciones al IBPGR.

Fue la primera vez que se reunieron en un mismo lugar a los representantes de los países miembros del IBPGR y de la FAO. Se discutió sobre las prioridades de la FAO y del IBPGR, se presentaron los informes de los países y se hicieron recomendaciones al IBPGR.



Queensland Herbarium, Brisbane, Australia  
Desmodium heterocarpon collections  
May 18, 1979

District	Location	Date	No. of sheet
Moreton	Bribie Island 27°0', 153°8'	April 1915	019923
"	Palmwoods 26°4', 152°5'	Feb. 1, 1962	34290/019922
"	Point Lookout 27°0', 153°0'	1947	019921
"	Moreton Island (swamp) 27°4', 153°0' 1.5 m high	3/29/73	157757
"	2 km N. Coolum Beach 26°3', 153°0' 130 km N. Brisbane	Nov. 1, 1975	019920
"	Eumundi 26°2', 152°5'	1911	229702
Wise Bay	Watalgan <sup>na</sup> , Bundaberg 24°3', 152°0'	4/16/62 <b>CIAT 3754</b>	033964/019925
" "	Mainland, opposite Southern end of Frazer Island 25°4', 152°5'	1/18/28	019926
Port Curtis	Shoalwater Military Reserve 22°48', 150°35' CSIRO ISOPQD (a, 2.5 km N. Mt. Parnossus) (var. strigosum)	July 6, 1977 <b>CIAT 3755</b>	267799/2431811
	Gladstone 23°5', 151°1'	1888	019902
	S. Round Hill Head on inland side of peninsula 24°10', 151°54'	<b>CIAT 3756</b> 3/27/70	214517/019908
	Base of Burdenin Mt. 26°4'S, 153°0'E	2/21/34	214707/019909
	Gullies, North Coast, Percy Island (2 types) 21°45', 150°20'	May 3/06	019910
Cook	Somerset; Cape York 10°4', 142°3'	May 14/62	019919
	Clump Pt. 17°5', 146°0'	Nov. 56	037206/019918
	Bellendenken 17°1', 145°5'	1904	019917
	Bidoohrgh 16°5', 145°2'		019916
	Dump Pt.	Nov. 56	037207/019915
	Lizard Island 14°4'S, 145°2'E	12/24/74	206878/019914
South Kennedy	Andergrove, Mackey 20°1', 149°1'	Nov. 7/60	024850/229706
	Central Sugar Expt. Sta. Tehowai 21°0', 149°1'	Feb. 2/59	018544/019924



North Kennedy	Cardwell District 18°24', 146°4' S. of Camper Creek, W. of Bruce Hgwy.	Mar. 10/75	186945/019911
	Bovein District 20°0', 148°1'		019912
	Mt. Marlow 20°2', 148°3'		019913
New Guinea	Kunai, Trans-Busa, Merobe District	2/28/54	025380/019927
N. Temloy	Fogg Dam area 40 miles SE Darwin 12°3', 131°1'	5/18/59	0953681/019928
Sumatra	Mosihi Forest Reserve, Asahan, East Cocil	Oct. 1932	019929
New Guinea			019930
Isle of York Island			019932
NT	13 miles SE Darwin 12°3', 130°5'	5/25/58	019933
N. Guinea	Baroka, Nakeo District, Central Division	4/1933	019934
Philippines	Tawitawi, Sulu Province	Aug. 1924	019935
	Cervantes to Mancayan, District of Lepanto, Luzan	Nov. 1905	019936
	Busuaga Island	9/1922	019932
Hong Kong			019938
N. Guinea	Orochoto Bay, Popum	2/20/76	019939
Bengal			019941
Philippines	Island of Polillo	8/1909	019947
Malaysia	Kango, Pereis	11/18/29	019943
N. Guinea	Papua, Wuroi Onomo River, Western Division	2/1934	019944
"	Busu Logging Ara Markham Valley near Lac.	10/15/57	019942
"	Morobe District 6°35', 146°25'		039236/019945
N. Territory	Holmes Jungle, 8 miles E of Darwin	3/22/61	147807/019946

CIAT 3757



Seeds Collected from Australia  
and Received from CIAT

IRFL No.	CIAT No.	Comments
3273	3754	No seed <u>D. heterocarpon</u>
3274	3757	No seed <u>D. heterocarpon</u>
3275	3756	No seed <u>D. heterocarpon</u>
3276	None	No seed <u>D. heterocarpon</u>
3277	None	5/12/79 <u>Alysicarpus vaginalis</u> Magnetic Island off Townsville
3278	None	5/12/79 <u>Clitoria ternatea</u> , Magnetic Island off Townsville near boat dock
3279	3749	5/19/79 <u>D. heterocarpon</u>
3280	3750?	5/19/79 <u>D. heterocarpon</u> - sun area
3281	3751?	5/19/79 <u>D. heterocarpon</u> - shade area A no seed
3282	None?	5/19/79 <u>D. heterocarpon</u> - shade area B
3283	None (3752) o.k.	my #14 on Queensland Herbarium Sheet
3284	None (3753) o.k.	my #17 on Queensland Herbarium Sheet
3285	None	my #19 on Queensland Herbarium Sheet
3286	3761 o.k.	5/12/79 <u>Desmodium</u> sp. ( <u>heterocarpon</u> ?) 2 km E (side of road) of Hampton which is 32 miles N of Toowoomba, heavy forest 30 inches rainfall (70% summer) up to 30 frosts/yr. 600-650 meters altitude (across the road from Barry Kahler property)
3287	None	5/19/79 <u>D. triflorum</u> , 20 km NE Beau desert, 40 m, sandy side of creek
3288	3760	5/20/79 <u>D. varians</u> , 2 km S of north arm at first rest stop N of Nambour, 40 m.
3289	3758	5/19/79 <u>D. varians</u> , rest stop past Mt. Coot-tha, 230 m, Eucalypt forest No seed
3290	None	5/19/79 <u>D. varians</u> , 33 km N of Beaudesert (road to Brisbane), 40 m, Roadside, No seed
3291	None	5/19/79 <u>D. varians</u> , 20 km NE Beaudesert, Eucalypt forest - No seed
3292	3759	5/19/79 <u>D. varians</u> , 20 km NE Beaudesert, top of hill, 50 m, Eucalypt forest
3293	None	5/15/79 <u>Desmodium heterophyllum</u> , King Ranch, Tully
3294	None	
3295	None	'Malawi' <u>Glycine wightii</u>
3296	None	5/14/79 early flowering <u>Glycine wightii</u> - no seed
3297	217	5/19/79 <u>Glycine</u> sp. first rest stop going up south side of Mt. Coot-tha 110 m.
3298	218	5/19/79 <u>Glycine</u> sp. rest stop past Mt. Coot-tha 230 m.



3299	219	5/19/79 <u>Glycine</u> sp. rest stop, 100 m past Channel 9 TV station at summit of Mt. Coot-tha 230 m. Eucalypt forest - No seed.
3300	None	5/19/79 <u>Glycine</u> sp. 20 km NE Beaudesert (road to Brisbane, 40 m, roadside)
3301	220	5/19/79 Bribie Island, Bellara, 20 m.
3302	221	5/20/79 10 km N of Maryborough on way to Hervey Bay
3303	None	<u>Lotononis anglonensis</u>
3304	2232	5/19/79 <u>S. humilis</u> , first rest stop on left going up south side of drive to Mt. Coot-tha 110 m
3305	2233?	5/20/79 <u>S. humilis</u> , intersection of Highway #1 and Hervey Bay road at Howard.
3306	2234	5/20/79 <u>S. humilis</u> , 4 km N of Maryborough (road to Hervey Bay)
3307	2235	5/20/79 <u>S. humilis</u> , Gladstone Hotel area, Gladstone
3308	None	King Ranch, Tully
3309	None	5/14/79 <u>S. humilis</u> Walkanun Agric. Res. Sta.
3310	None	5/12/79 <u>S. humilis</u> from near the bridge over the Townsville River
3311	None	5/12/79 <u>S. humilis</u> Magnetic Island, Koala Bear zoo
3312	None	5/14/79 Walkanun Agric. Res. Sta. - <u>S. guianensis</u> CPI 40255 early flowering
3313	None	5/25/79 Native <u>Zornia</u> Marayan Res. Sta.
3314	None	No seed
3315	None	<u>Desmanthus virgatus</u> CPI 78377
3316	None	Pigeon Pea Univ. Queensland #50 Dr. E. S. Wallis
3317	7926	5/9/79 <u>Hardenbergia violacea</u> ( <u>H. monophylla</u> )
3319	3778	<u>D. heterocarpon</u> no seed
3320	3780	<u>D. heterocarpon</u> no seed
3321	3781	<u>D. heterocarpon</u> no seed
3322	3784	<u>D. heterocarpon</u> no seed
3324	3787	<u>D. heterocarpon</u> no seed
3325	3788	<u>D. heterocarpon</u> no seed
3326	3790	<u>D. heterocarpon</u> no seed



Desmodium heterocarpon  
Queensland Herbarium DPI  
Les Pedley, (Bob Johnson director)

<u>District</u>	<u>Location</u>
1. Burke 019883	18°3', 138° 3'
2.* Burnett 019884	25°1', 151° 4'
3. Cook (223788) 227857	15°2', 145° 1' Cooktown rubbish dump
4. " (019894) 037847	16°4', 145° 2' Mt. Molloy (in open Eucalypt forest) 400 m, erect 40 cm.
5. " (019895) 5903	17°0', 145° 0' Near Mareeba, layered woodland with E. alba, E. leptophleba and Melaleuca minutefolia, sprawling robust shrub 2 ft. high, 4-5 ft. across.
6. " (019896) 2196	16°0', 145° 0' Daintree river
7.**Moreton (019887) 111695	27°2', 152° 5'
8.** " (019888)	28°0', 153° 2'
9. " (019889) 073769	27°1', 152° 5' Petrie, 18 miles N of Brisbane in open forest
10. " (019890) 073766	27°1', 152°5' same as "9" but larger plant
11. " (019891) 036020	26°4', 152°5' "Woodnook" Landsborough H. S. Tutt 31 Jan. 1963 "Is spreading rapidly in heavy Blady grass in damp forest country on Portion 157 Parish of Bribie scattered over 2 acres
12.**+ " (019892) 077683	27°2', 152°5' Between Mt. Coot-tha and the Summit, Taylor range in Eucalypt forest on stony slopes, 240 m
13. Moreton (019893)	27°35', 152°53' Brisbane River
14. North Kennedy (226787) 232569 <u>CIAT 3752</u>	18°25', 146° 5' Besides old Dalrymple track near Cardwell, open Eucalpt forest, hillside, large leaved
15. " (019885) 220890	18°16', 146°0' 5.5 km north of Cardwell, approx. 1 km east of Bruce highway, light coastal forest, sandy soil
16. " (019886)	18°31', 146°0'
17. 375311 (265603) 242049	20°4', 148°3' Clarke range, west of Cathu <u>CIAT 3753</u>
18.**Wide Bay (019897)	26°2', 152°5' Cooroy; clay loam forest soil
19.** " +	Bundaberg, 1932 letter on flies being trapped by hooks on seed cases. <u>Metoponia rubriceps</u>
20. Longkawi near Sarratorium (019899)	(Malay Peninsula) Singapore 38112
21. Flora of Siam 9714 (019900) 038856	Selaru forest reserve
22. CPI 32775 (019901)	Collected from New Guinea by B. Carr-Clark
23. (019903) 039237	Western Highlands Dist. terr. of New Guinea, near Mount Hagen Station 1200 m wet grassland
24. (019904)	Navua, Fiji
25. (019905) 024376	Goroka town area, East Highlands, New Guinea, 1800 m
26. (019906)	Herb. Ind. or Hook fil. Thompson, Mont Khasia 1000 m.





COLECCION INTERNACIONAL DE GERMOPLASMA  
DE PLANTAS FORRAJERAS TROPICALES

RESUMEN DE RECOLECCION

Recolector (Nombre): R. Schultze-Kraft, A.E. Kretschmer e I. Porzecanski

País y área de recolección: Australia — Queensland y Northern Territory

Fecha: Mayo 18-21, 1979  
31 JUL. 1979

Fecha	Número Recolector	CIAT	Especie, nombre	Sitio de recolección
18/5		3752	<i>Desmodium heterocarpon</i>	Queensland
		3753	" "	"
		3754	" "	"
		3755	" " var.	"
			<i>Strigosum</i>	"
		3756	<i>Desmodium heterocarpon</i>	"
		3757	" "	Northern Territory
19/5		217	<i>Glycine</i> sp.	Queensland
		2232	<i>Stylosanthes humilis</i>	"
		7926	<i>Hardenbergia violacea</i>	"
		3758	<i>D. aff. varians</i>	"
		218	<i>Glycine</i> sp.	"
		3749	<i>D. heterocarpon</i>	"
		219	<i>Glycine</i> sp.	"
		7924	<i>Zornia</i> sp.	"
		3759	<i>D. aff. varians</i>	"
		3750	<i>D. heterocarpon</i>	"
		3751	" "	"
		3762	<i>D. aff. varians</i>	"
		220	<i>Glycine</i> sp.	"
20/5		3760	<i>D. aff. varians</i>	"
		2234	<i>Stylosanthes humilis</i>	"
		221	<i>Glycine</i> sp.	"
		2233	<i>Stylosanthes humilis</i>	"
		2235	" "	"
21/5		3761	<i>D. aff. varians</i>	"
		222	<i>Glycine tabacina</i>	"



Legume Collection Trip  
Queensland, May 19/20, 1979

Collection  
file #

19/5

- 1 ✓ Mount Coot-Tha Park, Brisbane 110 m ~~110 m~~  
shallow, stony soil, Eucalyptus forest

217 - Glycine sp. ✓

2232 - Stylo humilis ✓ Hardenbergia violacea

7926 - climbing legume with hard, unifoliate leaves, ✓  
flowers similar to those of Galactia sp.

- 2 ✓ Mount Coot-Tha Park, Brisbane 230 m  
Eucalyptus forest

3758 - Desmodium sp. ✓ (similar to D. canum), creeping

218 - Glycine sp. ✓ (identical to stop # 1)

- 3 ✓ Mount Coot-Tha Park, Brisbane; 100 m North of TV Station  
QTR Canal 9 - 230 m; Eucalyptus forest

3749 - Desmodium heterocarpum ✓

219 - Glycine sp. (as at stops # 1 and 2)

- 4 ? 33 km North of Beaudesert (road from Brisbane), 40 m  
roadside (Eucalyptus forest)

- Desmodium sp. (similar to D. canum), narrow  
leaves

5 ?

ca. 20 km NE Beaudesert

40 m; sandy; creek-side

- Desmodium triflorum



6 ca. 20 km NE Beaudesert

Eucalyptus forest

- Glycine sp.

- Desmodium sp. (similar to D. canum), broad leaves

6 a ✓ ca. 20 km NE Beaudesert

50 m

Eucalyptus forest, top of hill (flat tyre site)  
60 m

7924 - Zornia sp. ✓

3759 - Desmodium sp. ✓ (similar to D. canum), broad leaves

7 ✓ 145 S of Gympie: "Burpengary Creek" - rest area  
40 m

3750 - Desmodium heterocarpum - 2 types (?) ✓ ✓ + D. aff. varians

3751 growing in shade & in sun

3762 = 1/2 km before turn-off to Caboolture

8 ✓ Bribie Island, Bellara 20 m

220 - Glycine sp.

sandy soil, housing area

20/5

First rest stop North of Nambour = 2 km South of  
North arm ; 40 m

3760 - Desmodium sp. (similar to D. canum)

4 km North of Maryborough (road to Hervey Bay), 40 m

2234 - Stylo humilis



10 km North of Maryborough (road to Hervey Bay)  
30 m

221

- Glycine sp.

Howard (intersection Bruce Highway - road to  
Hervey Bay) - roadside

2233

- Stylo humilis

2 km South of Gin-Gin + - 120 mts

- Desmodium sp. (similar to canum)

Gladstone, opposite airport 20 mts

- Grotalaria sp. (?)

- ~~Desmodium heterophyllum (?)~~ +

2235

- Stylo humilis



5/19/79 Collection trip

Site A Mount Coot-tha.

1. 1st rest stop on left going up south side of drive ~~110m~~
2. Rest stop past Mt. Coot-tha 230m
3. Rest stop 100m past Channel 9 TV station at summit. 230m Photo

Site B ~~Rest stop~~ 40m Burpengary creek

~~5~~ ~~Shade~~  
Sunlight open  
Shade

7a 4 D. heterocarpus? 23 photos

7b 5 D. heterocarpus

Sunlight  
7 ~~7a~~ D. heterocarpus Photos

Photo beach at Bribie Island

5/20/79

Photo near tin can bay of beach with rocks

Photo H. altissima 37453/0 130 mts

= 12.5 km 34655

S of road junction 12 S  
Miniam Vale

2 Photos Boyne Island near Gladstone

last samples, crotalariae, ? across from Airport  
and, from <sup>across the road</sup> Port Curtis Apex Club sports field



## Queensland Herbarium

18/5/79

## Desmodium heterocarpum

## District

Moreton	Bribie Island ✓	(27°00', 153°08')	April 1915	019923
"	Palmwoods ✓	26°4' 152°5'	Feb 1 <sup>st</sup> 1962	34290 / 019922
"	Point Lookout ✓	27°00' 153°00'	1947	019921
"	Moreton Island (Swamp) ✓ 1.5 m high	27°04' 153°23'	29/3/73	157757
"	2 km N Coolumb Beach, ✓ ~ 130 km N Brisbane	26°3' 153°00'	01 Nov 75	019920
"	Eumundi ✓	26°2 152°5	1911	229702
Wide Bay <b>3754</b>	Watalgan, via Bundaberg ✓	24°3 152°0	16th 4/62	033964 / 019925
"	Mainland, opp. Southern end of Fraser Island ✓	25°4 152°5	18/1/28	019926
Port Curtis <b>3755</b>	Shoalwater Military Reserve, ✓ <del>Rat. shigodum</del> CSIRO ISOPOD site ca. 2.5 km N Mt. Parnassus (var. shigodum)	22°48 150°35	Jul 6/77	(267799 243181)
	Gladstone ✓	23°5, 151°1	1888	019907
<b>3756</b>	S Round Hill head on inland side of peninsula	24°10' 151°54	27/3/70	214517/019908
(2 types)	Base of Buderim Mt. ✓	26°4' S, 153°0 E	21/2/34	214707/019909
	Gullies, North coast, Stn. Percy Isl.	21°45 150°20	May 3/06	019910



District	Date	Location	Nos.	
Cook	May 14/62	Somerset, Cape York	10°4', 142°3'	019919
	Nov. 56	Clump Pt.	17°5', 146°0'	037206 / 019918
	1904	Bellendenker	17°1', 145°5'	019917
		Biboohrah	16°5', 145°2'	019916
	Nov. 56 +	Clump Pt		037207 / 019915
	24/12/74	Lizard Island	14°4'S, 145°2 E	<del>037</del> 202678 / 019914
Sth.	Jul 7/60	Undergrove, Mackay	20°1', 149°1'	024850 / 229706
Kennedy	Feb 2/59	Central Sugar Exp. Sta., Te Kowai	21°0', 149°1'	018544 / 019924
Nth. Kennedy	Mar 10/75	Cerdwell District, S of Camper Creek, W of Bruce Highway	18°24', 146°04'	186945 / 019911
		Boven District	20°0', 148°1'	/ 019912
		Mt. Harlour	20°2', 148°3'	019913
N Guinea <del>Guinea?</del>	28/2/54	Kunai, Trans-Bush, Morobe District		025380 / 019927
N. Territory	18/5/59	Fogg Dam area, 40 miles SE. Darwin	12°03', 131°1'	095368 / 019918
Sumatra	Oct. 1932	Masih Forest Reserve, Asahan, East Coast		019929
N. Guinea		Mainland of New Guinea		019930
Duke of York Island				019932
NT	25/5/58	13 miles SE Darwin	12°3', 130°5'	019933
N Guinea	4/1933	Baroka, Nakeo District, Central Division		019934



Philippines	Aug 1924	Tawitawi, Sulu Province	019935
	Nov. 1905	Cervantes to Mancayan	
		Dist. of Lepanto, Luzon	019936
	9/1922	Busuanga Island	019937
Hong Kong			019938
N Guinea	20/2/26	Orokoto Bay, Papua	019939
Bengal			019941
Philippines	8/1909	Island of Polillo	019942
Malaysia	18/11/29	Kangar, Perak	019943
N Guinea	2/1934	Papua, Wuroi, Oniomo River, Western Division	019944
↓	15/10/1957	Busu Logging area, Markham Valley, near Lae, Morobe District	019945
		6°35', 146°25' 039 236/	019945
N Terng	22/3/61	Holmes Jungle, 8 mi E of Darwin	147807/ 019946
	3757		



*Desmodium heterocarpum*

Queensland Herbarium DPI

Les Pedley, (Bob Johnson director)

District

LOCATION

1. BURKE 019883 18° 3', 138° 3'
2. <sup>+</sup><sup>\*</sup> BURNETT 019884 25° 1', 151° 4'
3. COOK (223788) 27857 15° 2', 145° 1' Cooktown rubbish dump.
4. " (019894) 037847 16° 4', 145° 2' Mt. Molloy (in open Eucalypt forest) 400 m, erect 40 cm.
5. " (019895) 5903 17° 6', 145° 0' Near Mareeba, layered woodland with *E. alba*, *E. leptophleba* and *Melaleuca minutifolia*, ~~and~~ sprawling robust shrub 2 ft. high, 4-5 ft. across.
6. " (019896) 2196 16° 0', 145° 0' Laintree river
7. <sup>+</sup><sup>\*</sup> Moreton (019887) 111695 27° 2', 152° 5'
8. <sup>+</sup><sup>\*</sup> " (019888) 28° 0', 153° 2'
9. <sup>+</sup><sup>\*</sup> " (019889) 073769 27° 1', ~~152° 5'~~ 152° 5' Petrie, 18 miles N of Brisbane in open forest
10. " (019890) 073766 27° 1', 152° 5' - same as "9" but larger plant
11. <sup>+</sup><sup>\*</sup> " (019891) 036020 26° 4', 152° 5' "Woodnook" Landsborough H.S. tatt 31 Jan. 1963 Is spreading rapidly in heavy Gladys grass in damp forest country on Portion 157 Parish of Bribie scattered over 2 acres
12. <sup>+</sup><sup>\*</sup> " (019892) 077683 27° 2', 152° 5' Between Mt. Coot-tha and the Summit, Taylor range in Eucalypt forest on stony slopes, 240 m.



13. Moreton (019893) 27°35', 152°53' Brisbane River
14. North Kennedy (226787) 232569 18°25', 146°5' Besides old  
 (CIAT 3752) Calyptro track near Cardwell, open Eucalypt  
 forest, hillside, large leaved
15. " (019885) 220890 18°16', 146°0' 5.5 km north of  
 Cardwell, approx. 1 km east of Bruce  
 highway, light coastal forest, sandy soil
16. " (019886) 18°31', 146°0'
17. 3753 (265603) 242049 20°4', 148°3' Clarke range, west of Cathu
18. \*\* Wide Bay (019897) 26°2', 152°5' Cooroy; clay loam forest  
 soil. ~~1932~~
19. \*\* " + BUNDABERG, 1932, letter on  
 flies being trapped by hooks on  
 seed cases. *Metoponia rubriceps*  
 (019899)
20. Langkawi near Sanatorium (Malay Peninsula) Singapore 38112
21. Flora of Siam 9714 (019900) 038856 Selaru forest reserve
22. CPI 32775 (019901) Collected from New Guinea by B. Carr-Clark
23. (019903) 039237 Western Highlands Dist. Terr. of New  
 Guinea, near Mount Hagen Station 1700 m.  
 wet grassland.
24. (019904) Navua, Fiji
25. (019905) 024376 Goroka Town area, East. Highlands,  
 New Guinea, 1800 m
26. (019906) Herb. Ind. Or Hook fil. Thompson, Mont Khasia  
 1000 m.