

THE ANTS OF OUR NATIONAL PARKS

By

A. J. PRINS,

Institute for Plant Protection, Rosebank, Cape.

As a result of the new distribution localities discovered during the last survey in the Kruger National Park in 1964, it was necessary to draw up six new distribution maps for already known species and for the new additions to the present collection of ants for this reserve. One survey was made in the Kalahari Gemsbok National Park in 1964 of which a single map is included, and during the same year two collection trips were undertaken in the Bontebok National Park near Swellendam. The new maps are given at the end of this paper; map 6 replaces map 44 in Koedoe No. 7, 1964.

The localities of the species found in the Kruger Park, which were previously published in Koedoe are excluded from this list; this also applies to the same species found in the Kalahari and Bontebok National Parks.

Of the approximate 108 genera of the Ethiopian Region only 71 occur in the Republic of South Africa, of which 31 were collected in the Kruger Park, 14 in the Bontebok Park and 11 in the Kalahari Park. The distribution of these genera in South West Africa, Southern Rhodesia, Botswana and the southern part of Mocambique is given in Table 1, and the distribution of the species in the different parks in Table 2. For the reader's interest the Hluhluwe and Umfolosi Game Reserves are included in Table 2. The number of samples taken in each case gives some idea of the abundance of the species, except in the case of *Anopolepis custodiens* and *A. steingroeveri* which usually occur in fairly large numbers, but only a few samples were taken. The reader should bear in mind, however, that heavy floods in the Kalahari Park, prior to the survey, may have been the cause of the limited number of species found in that area at the time of collecting.

KRUGER NATIONAL PARK

Of the total of 450 samples collected 70 could not be identified because the number of specimens are inadequate. In 47 samples it was possible to determine the species only, the subspecies and varieties being unknown.

After careful examination of more specimens of *Ocymyrmex weitzzeckeri arnoldi* collected at Lower Sabie, Tshokwane, and in blocks N168, N107, N73, N25, N4, S61, S59, S42, S30 and S20, I found that in some specimens the striation of the pronotum is quite different from that of the variety *arnoldi* and the validity of the varietal name of these specimens is therefore doubtful

and only the specific name should therefore be retained in the previous list, in Koedoe No. 7, 1964.

The Matabele Ant *Megaponera foetens* which was previously found near Shingwidzi, has now been collected near Punda Milia and in block N41; it still seems, however, that this ant is restricted to the northern Parts only as it has not been found in the reserve south of the Tropic of Capricorn.

Another well-established ant, apart from the harvester *Ocymyrmex* (Prins, 1963) is *Tetramorium sericeiventre femoratum*, although this ant seems to be sporadically granivorous, for in most cases where the nests were opened, the skeletons of *Ocymyrmex weitzackeri*, *Pheidole megacephala*, *Tetramorium setuliferum* and *Dorylus* species were found as well as the remains of small beetles (*Tenebrionidae*) and of termites. *Tetramorium setuliferum*, on the other hand, seems to be highly granivorous, although some nests in the south near Pretoriuskop were found to prey on *Odontomachus haematodes*, *Pheidole* and *Dorylus* species.

As more specimens of *Cataulacus rugosus krugeri* (Prins, 1965) were collected, including males and females, I was able to determine the validity of this form as being a definite subspecies of *rugosus*, differing from the variety *subrugosus* Santschi by the sculpture of the abdomen which is much less developed and by the longer epinotal spines.

A. NEW DISTRIBUTION LOCALITIES.

SUBFAMILY DORYLINAЕ LEACH

1. *Dorylus helvolus* L. — Block N5 (J. J. Cillie)

SUBFAMILY PONERINAE LEP.

2. *Ophthalmopone berthoudi* For. — Blocks N51, N75, N97 (J. J. Cillie); S8 (A. J. Prins).
3. *Bothroponera krügeri* For. — Block N51 (J. J. Cillie).
4. *Bothroponera soror* Em. — Block S30 (J. J. Cillie).
5. *Megaponera foetens* F. — Punda Milia; N4 (J. J. Cillie).

SUBFAMILY MYRMICINAE LEP.

6. *Pheidole megacephala* F. subspecies and varieties unknown. — Pumbe (A. J. Prins).
The type locality of the species itself is Mauritius. It has a world-wide distribution, occurring in England, Italy, Syria, China, Japan, Ceylon, Madeira, North, South and Central America, the West Indies and the Islands of the Oceania group.
7. *Monomorium delagoensis* For. *junodi* For. — Block S30. (J. J. Cillie).
8. *Monomorium prossae* For. — Block N51 (J. J. Cillie).
9. *Tetramorium setuliferum* Em. — Blocks N51 (J. J. Cillie); S8 (A. J. Prins); C94 (A. J. Prins & J. J. Cillie).

10. *Tetramorium sericeiventre* Em. *femoratum* Em. — Blocks N5 (J. J. Cillie); C182, C94 (A. J. Prins).

SUBFAMILY FORMICINAE LEP.

11. *Acantholepis capensis* Mayr *validiuscula* Em. — Block N5 (A. J. Prins).
12. *Camponotus maculatus* F. *hannae* Sant. — Blocks N5 (A. J. Prins); C172 (A. J. Prins; J. J. Cillie).
13. *Camponotus rufoglaucus* Jerd. *zulu* Em. — Blocks S30, C172 (A. J. Prins).
14. *Polyrachis schistacea* Gerst. — Block S30 (A. J. Prins).
15. *Polyrachis schistacea* Gerst. *rugulosa* Mayr — Blocks N5, S45 (J. J. Cillie).

B. NEW ACCESSIONS.

SUBFAMILY PONERINAE LEP.

I. GENUS PLATYTHYREA ROGER

P. mocquerysi Em. var. *matopoensis* Arn.

Type Locality: Matoppo Hills, Rhodesia (G. Arnold).

Distribution: South Africa: Transvaal: KNP. — Block N5 (A. J. Prins).

II. GENUS PLECTROCTENA SMITH

(Ethiopian).

P. mandibularis Smith

Type Locality: Durban, Natal (Guéinzius).

Distribution: Cameroon; Rep. of the Congo; Tanzania; Kenya; Uganda; Mozambique; South West Africa; Rhodesia; Kalahari Desert; South Africa: Orange Free State; Cape Province: Cape Town (Wilms); Mafeking (Schultze); Natal: Durban (Wilms); Zululand (Wilms); Transvaal: Makapan (E. Simon); Valdezia (Creux & Berthoud); Johannesburg (Dixey & Longstaff); KNP — Blocks N51; N97 (J. J. Cillie).

SUBFAMILY MYRMICINAE LEP.

GENUS PHEIDOLE WESTWOOD

Ph. crassinoda Em. ssp. *ruspolii* Em.

Type Locality: Giari Bule, Ethiopia (Ruspoli).

Distribution: Somali Rep.; Sudan; Rep. of the Congo; Kenya; Rhodesia; South Africa: Natal: Hluhluwe Reserve (A. Boonzaaier); Transvaal: KNP.—Block N4 (A. J. Prins).

III. GENUS CATAULACUS SMITH

1. *C. rugosus* For. subsp. *krugeri* Prins

Type Locality: Pumbe, KNP. — Transvaal (A. J. Prins).

2. *C. baumi* For. Subsp. *batonga* For.

Type Locality: Rhodesia (G. Arnold).

Distribution: South Africa: Cape Prov.: Mafeking (J. D. Ethelston); Transvaal: KNP—C173 (A. J. Prins).

SUBFAMILY FORMICINAE LEP.

1. GENUS CAMPONOTUS MAYR

Subgenus *Myrmotrema* Forel

C. olivieri For. — Subspecies and varieties unknown.

This ant with its different subspecies and varieties is found in Angola, Ghana, Gabon, Congo, Rep. of the Congo, and Mocambique. In South Africa it was found in Pretoria and in the Kruger Park in Pafuri (A. J. Prins).

2. GENUS POLYRACHIS SHUCKARD

P. schlüteri For.

Type Locality: Tanzania (Schlüter).

Distribution: Togo; Kenya; Mocambique; South Africa: Natal: Stamford Hill (I. Trägaordh); Durban (H. Brauns); Zululand (I. Trägaordh); Transvaal: KNP.—N5 (A. J. Prins).

KALAHARI GEMSBOK NATIONAL PARK.

One extensive survey during August 1964 in exceptionally cold weather resulted in only a small number of specimens, taken in the Auob River as far as Oup, in the Nossob as far as Kwang and from Kaspers Draai in a western direction towards Mata Mata. Of the 54 samples collected over a period of 8 days 18 could not be identified and in 16 samples the subspecies or varieties remain unknown.

None of the red ants (*Dorylinae*) were found, although it is interesting to note that *Dorylus fulvus* Westw. *badius* Gerst. was collected by Mr. F. Gaerdes near Okahandja and by various other workers near Warmbad and Rietfontein in South West Africa. Of the Ponerine ants only two species were collected by the writer near Kameelsleep, the rest of the Reserve did not yield any other species of this subfamily.

The bearded ant *Ocymyrmex weitzekeri* which is well adapted for semi-desert areas is quite common right through the reserve as well as the harvester *Messor barbarus capensis*. Bare patches of ground mark the nests of most of these ants and it is possible that they could be the cause of the damage. *O. weitzekeri* is represented by an unknown subspecies which is very similar to the variety *flaviventris* described by Santschi from South West Africa. In these ants the abdomen is yellowish in colour, while an unknown subspecies collected near Kamqua has the abdomen piceous and resembles the subspecies *hirsutus* For. found in Botswana. The related *Oxymyrmex barbiger* Em. which is quite common in the Western Cape, Namaqualand and South West Africa seems to be absent from this reserve.

Another well represented genus is *Tetramorium* especially the species *solidum* which is found along the West Coast of the Republic, in the Karoo and in certain areas in Natal. This species is also a harvester, although occasionally they are found to prey on other species of ants. It is absent from the Kruger Park. *T. sericeiventre* which has a north easterly distribution and



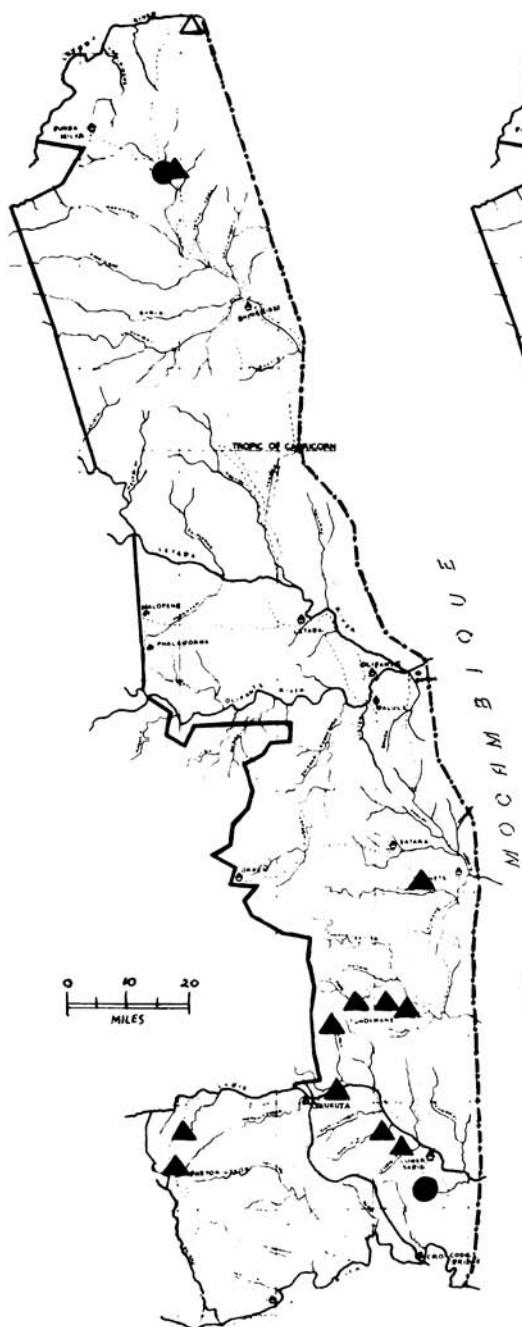
MAP — 1

Dorylus helvolus L.
Ophalmopone berthoudi For.
Plectroctena mandibularis Sm.



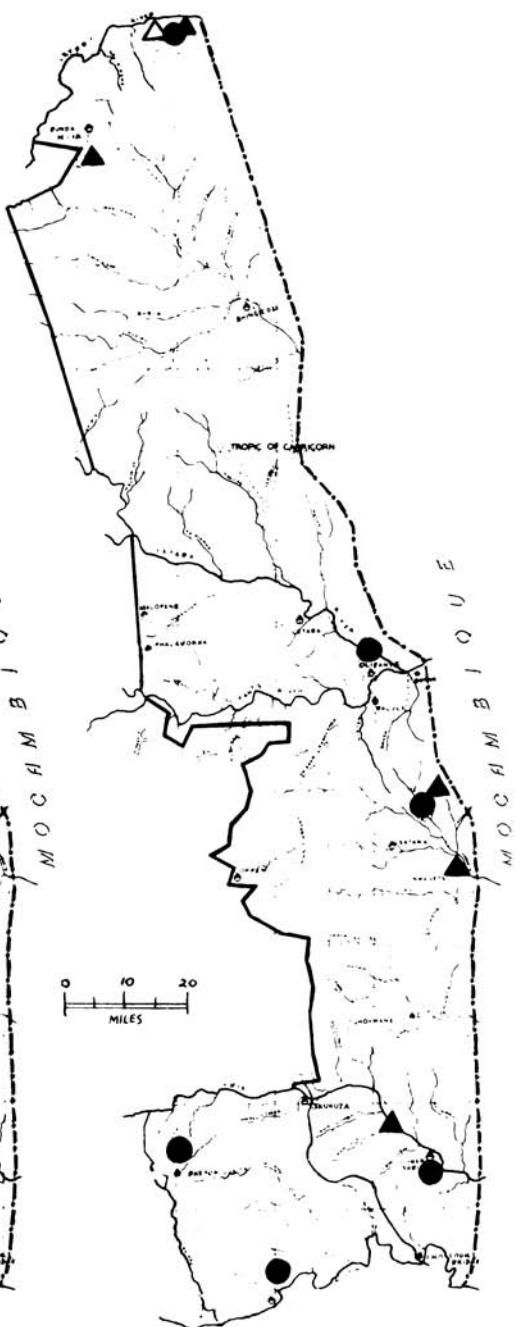
MAP — 2

<u>Megaponera foetens</u>	Fab.	★
<u>Bothroponera krügeri</u>	For.	▲
<u>Bothroponera soror</u>	Em.	△
<u>Polyrachis schluteri</u>	For.	●



MAP — 3

- Monomorium prossae For. ●
- Tetramorium setuliferum Em. ▲
- Camponotus (Myrmotrema) olivieri For. △



MAP — 4

- Acantholepis capensis Mayr
- var. validiuscula Em. ▲
- Polyrachis shistacea Gerst.
- var. rugulosa Mayr. ●
- Phidole crassinoda Em. △
- subsp. ruspolii Em. △



MAP — 5

Camponotus (Tanaemyrmex)
subsp. hannae Sant.

maculatus

F



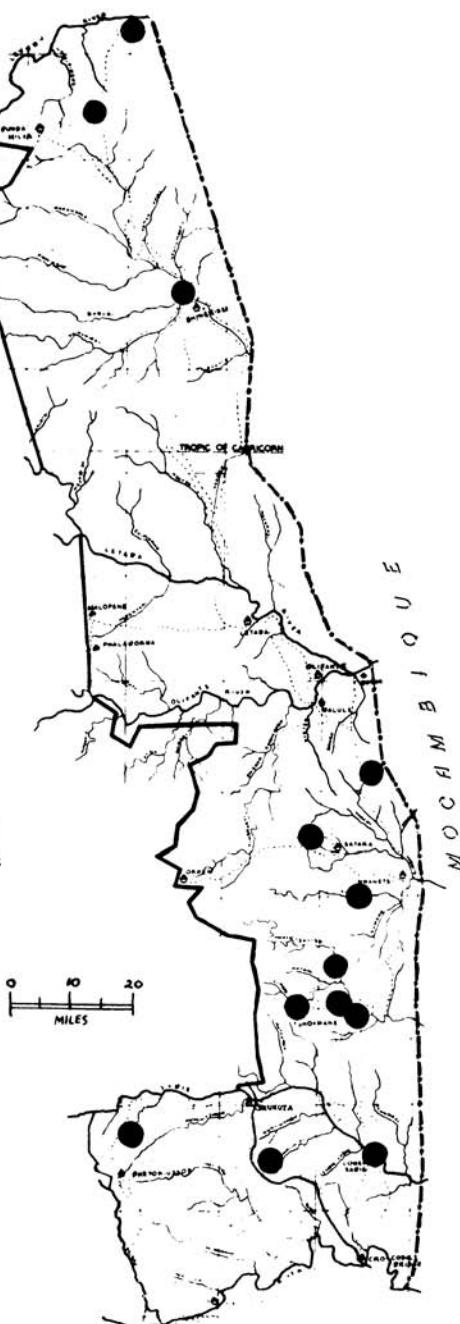
Camponotus Myrmosericus
subsp. zulu Em.

rufoglaucus

Jerd.



Platythyrea mocquerysi Em. var.
matopoensis Arn.



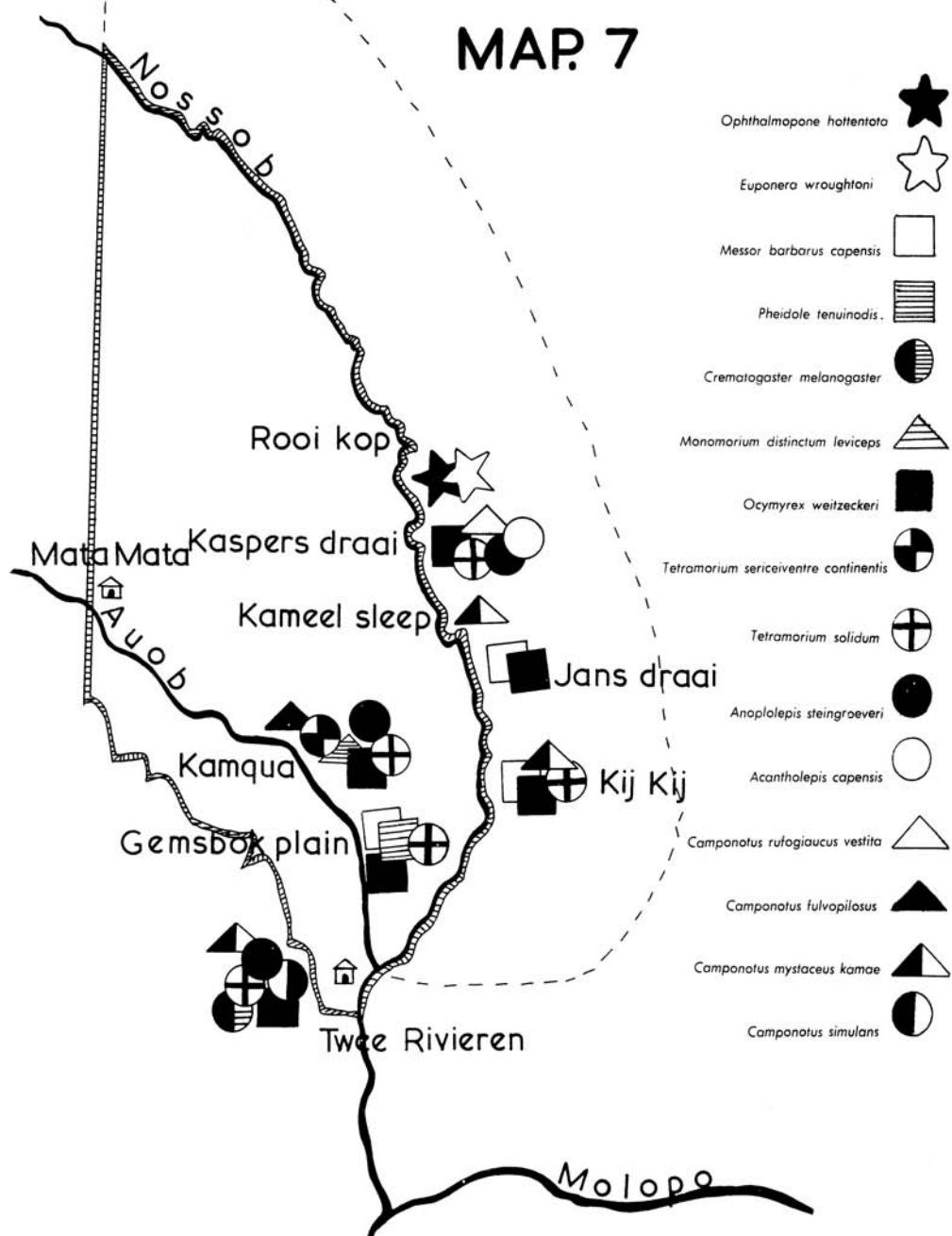
MAP — 6

Tetramorium sericeiventre Em.
subsp. femoratum Em.



KALAHARI GEMSBOK — NATIONAL PARK

MAP 7



which is well-represented in the latter Reserve, was also collected near Kamqua; in this area it is represented by the subspecies *continentis*.

The tropicopolitan brown house ant *Pheidole megacephala* F. which occurs in South West Africa is absent from the reserve but the genus is represented by *Ph. tenuinodis*. Of the Cocktail ants the arboreal *Crematogaster melanogaster* seems to be fairly common as well as the pugnacious ants *Anoplolepis steingroeveri* and *A. brauni* and the small black sugar ant of the Cape, *Acantholepis capensis*. These ants are all aphidicolous and may often be seen visiting coccids on the branches of thorn trees.

The bearded *Camponotus mystaceus kamae* is the most well-known of the Camponotine ants in this area; the spotted sugar ant *Camponotus maculatus* F., common in the Kruger Park, does not occur in the Kalahari Park, although it is found in South West Africa. *C. fulvopilosus* on the other hand is almost as numerous as *C. mystaceus* in the Kamqua area and there is evidence that it occurs further north towards Kwang.

A. SUBFAMILY PONERINAE LEP.

1. GENUS OPHTHALMOPONE FOR.

O. hottentota Em.

Type Locality: Cape Peninsula (L. Peringuery).

Distribution: Rhodesia; South Africa: Cape Province: Willowmore (H. Brauns); Laingsburg; Ladismith; Robinson Pass; Kliprand; Bitterfontein (A. J. Prins); KGNP — Kameelsleep (A. J. Prins).

II. GENUS EUPONERA FOR.

Subgenus *Trachymesopus* Em.

E. wroughtoni For.

Type Locality: Natal (R. C. Wroughton).

Distribution: Kenya; South Africa: Natal: Estcourt. Cape Province: Knysna (H. Brauns); Heidelberg (A. J. Prins, J. J. Cillie); Bontebokpark (A. J. Prins); KGNP — Kameelsleep (J. J. Cillie).

B. SUBFAMILY MYRMICINAE LEP.

1. GENUS MESSOR FOR.

M. barbarus L. subsp. *capensis* Mayr

Type Locality: Cape Peninsula (Novara Expedition).

Distribution: South Africa: Natal: Drakensberg; Durban (G. Arnold); Wessel's Neck (C. B. Cooper); Colenso (J. H. Grobler); Orange Free State: Boshof (J. H. Grobler); Jagersfontein (F. Honiball); Transvaal: Makapan; Pretoria (E. Simon); Kruger National Park (A. J. Prins); Cape Province: Cape Town (E. Simon); Kimberley (Dixey and Longstaff); Willowmore (G. Arnold); Philadelphia; Cradock; Queenstown; Wemmershoek (J. J. Cillie); Van Wyksvlei; Riversdale; Kamieskroon; Van Rhynsdorp; Klipdale; Oudtshoorn; Laingsburg; Blouberg Strand; Oudeplaas; Trawal; Napier (A. J. Prins); Steynsburg (P. de Weerdt);

Nieuwoudtville (J. H. Grobler); Bontebok Park (A. J. Prins); KGNP: — Jan's Draai; Kij-Kij (A. J. Prins); Ooikolk; Gemsbokplein (J. J. Cillie).

II. GENUS PHEIDOLE WESTW.

Ph. tenuinodis Mayr subspecies or varieties unknown.

This species has been collected in South West Africa, Botswana, Rhodesia and in South Africa in the Kruger National Park (A. J. Prins); in the Orange Free State in Bothaville (H. Brauns); and Boshoff (J. H. Grobler); and in the Cape Province in Ladismith (H. Brauns); Kirstenbosch (F. Silvestri); Drie Rivieren; Rietkop near Brandvlei; Silwerfontein near Springbok (A. J. Prins); and in the KGNP near Kameelsleep (J. J. Cillie).

III. GENUS CREMATOGASTER LUND

Subgenus *Acrocoelia* Mayr

C. melanogaster Em.

Type Locality: Durban, Natal (Gueinzius).

Distribution: South Africa: Orange Free State: Jagersfontein (F. Honiball); Cape Province: De Aar (E. Simon); Conway (Hewitt); Willowmore (H. Brauns); Kamaggas (L. Schultze); Clanwilliam; Garies; Springbok; Bitterfontein; Kriedoukraans; Laingsburg; Robinson Pass (A. J. Prins); KGNP — Twee Rivieren (J. J. Cillie); Kij-Kij (A. J. Prins).

IV. GENUS MONOMORIUM MAYR

Subgenus *Xeromyrmex* Em.

M. distinctum Arn. var. *leviceps* Arn.

Type Locality: Sundays River, Eastern Cape Province.

Distribution: South Africa: Cape Province: Klawer (A. J. Prins); KGNP — Kamqua (A. J. Prins).

V. GENUS OCYMYRMEX EM.

O. weitzekeri Em. — subspecies and varieties unknown.

The Type Locality of the species is Leribe in Lesotho. This ant with its different varieties is found in Tanzania, Angola, Rhodesia, South West Africa, Botswana and in South Africa in the Orange Free State; in Natal in Entendweni (I. Trägaordh); Transvaal in Makapan; Hammanskraal (E. Simon); Kruger National Park (A. J. Prins; J. J. Cillie) and in the Cape Province in Vryburg; Kimberley (E. Simon); The Nook near Tarkastad (A. J. Prins) and in the KGNP near Twee Rivieren; Gemsbokplein; Kamqua; Jan's Draai; Kasper's Draai; (J. J. Cillie) and Kij-Kij (A. J. Prins).

VI. GENUS TEETRAMORIUM MAYR

1. *T. sericeiventre* Em. ssp. *continentis* For. — varieties unknown.

The type locality of the subspecies is Natal; it has been found in the Republic of the Congo, Rhodesia, Angola, South West Africa, Botswana,

Lesotho; in South Africa in the Orange Free State — Jagersfontein (F. Honidall), in the Transvaal in Hammanskraal; Hebron (E. Simon); and in the Cape Province in the KGNP near Kamqua (J. J. Cillie).

2. *T. solidum* Em.

Type Locality: Cape Peninsula (C. Peringuery).

Distribution: South West Africa; South Africa: Natal: Ladysmith (Dixey & Longstaff); Colenso. Cape Prov.: Steinkopf (L. Schultze); Brandkop near Nieuwoudtville (A. J. Prins); Van Rhyns Pass (A. Boonzaaier); KGNP—Gemsbokplein (A. J. Prins).

3. *T. solidum* Em. subspecies and varieties unknown.

Distribution: The species with its three subspecies and five varieties is widely distributed as previously mentioned. In the Cape Province it occurs in Willowmore (H. Brauns); Kimberley (H. Brauns; G. Arnold); Matjiesfontein (E. Simon); Buffelskloof near Ladismith; Nabies near Pofadder (A. J. Prins); Loeriesfontein; Lekkerroog near Brandvlei; Rooiberg; Leeuwkolk near Van Wyksvlei; Van Rhynsdorp (J. J. Cillie); and in the KGNP — Kamqua; Kij-Kij; Kasper's Draai; Gemsbokplein; Along the Western border (A. J. Prins); and Twee Rivieren (J. J. Cillie).

SUBFAMILY FORMICINAE LEP.

I. GENUS ANOPLOLEPIS SANT.

Subgenus *Zealleyella* Arnold

A. steingroeveri For.

Type Locality: Angora Pequena, Tanzania (Steingröver).

Distribution: Angola; Botswana; South West Africa; South Africa: Orange Free State: Bothaville (H. Brauns); Bloemfontein (E. Simon; J. Nel). Transvaal: Makapan; Hebron (E. Simon); Bezuidenhoudskraal (J. Nel). Cape Province: Cape Town (E. Simon; Wilms); Willowmore (H. Brauns); Middelburg; Paarl (J. J. Cillie); Simonstown (E. D. Thomas); Saldanha; Springbok; Van Rhynsdorp-Citrusdal; Olyvenboschkraal near Citrusdal; Laingsburg; Robinson Pass; Oudekraal (A. J. Prins); Graafwater; Grootdrif near Nieuwoudtville; Ruitersbos near Mossel Bay (J. H. Grobler). Bontebok National Park (A. J. Prins); J. J. Cillie); KGNP — Twee Rivieren; Kamqua; Kasper's Draai (J. J. Cillie).

II. GENUS ACANTHOLEPIS MAYR

A. capensis Mayr — subspecies and varieties unknown.

The type locality of the species is Table Mountain, Cape Town. This species has a very wide range and with its somewhat 20 subspecies and varieties it occurs in Guinea, Sierra Leone, Sudan, Eritrea, Rep. of the Congo, Ghana, Ethiopia, Senegal, Southern Nigeria, Gabon, Tanzania, Kenya, Uganda, Rep. of Somali, Angola, Rhodesia, South West Africa and Botswana. In South Africa it is quite common in the Cape Province, and has also been

found in Transvaal, Natal and Lesotho, but it has not yet been collected in the Orange Free State. In the KGNP it was found near Kasper's Draai (A. J. Prins).

III. GENUS CAMPOONOTUS MAYR

(a) Subgenus *Myrmosericus* For.

C. rufoglaucus Jerd. subsp. *vestita* Sm.

Type Locality: Durban, Natal.

Distribution: Rep. of the Congo; Western Ethiopia; Mocambique; South West Africa; South Africa; Natal: Ntonjaneni (J. H. Grobler); Junction of Umfolozi Rivers (I. Trägaordh). Transvaal: Pretoria (F. Silvestri); Lydenburg (Wilms); Cape Province: Cape Town (E. Simon; Bergius; Wilms); Mafeking (G. Arnold); KGNP — Kasper's Draai (A. J. Prins).

(b) Subgenus *Myrmoppiromis* Wheeler

C. fulvopilosus De G.

Type Locality: Cape Peninsula, Cape Province.

Distribution: Cabinda; Angola; Rhodesia; South West Africa; South Africa: Lesotho; Orange Free State: Jagersfontein (F. Honiball). Transvaal: Bronkhorstspruit (J. J. Nell). Cape Province: Kimberley (E. Simon); Tulbagh; Ashton; Stompnose Cove; Saron; Conway near Middelburg (J. J. Cillie); Mc.Kinnonspost near Middelburg (A. J. Prins; J. J. Cillie); Volstruispoort near Vosburg; Hope Town; Britstown; Grootdrif near Van Rhynsdorp (J. H. Grobler); Kalabaskraal (A. Boonzaier; J. J. Cillie); Versfeld Pass (A. Boonzaier); Richmond (F. Honiball); Steynsburg (P. de Weerdt); Olifantsriviermond (R. Matthews); Clanwilliam (J. H. Grobler; J. J. Cillie); Grahamstown; Graafwater; Springbok; Steinkopf; Van Rhynsdorp; Kamieskroon; Philadelphia; Garies; Bitterfontein; De Doorns; Touwsrivier; Laingsburg; Aurora; De Rust; Drie Rivieren near Nababeep; Tarkastad; Klipkraal near Tarkastad; Lessingshoogte near Middelburg; Middelmount near Richmond; Robinson Pass; Kriedoukrans near Clanwilliam; Platbakkies; Langvlei near Worcester; Port Nolloth; Kaptein near Cradock (A. J. Prins); Bontebok National Park (A. J. Prins; J. J. Cillie); KGNP — Kamqua (A. J. Prins).

(c) Subgenus *Myrmopsamma* For.

1. *C. mystaceus* Em. var. *kamae* For.

Type Locality: Rooibank, near Walvis Bay, S.W.A. (L. Schultze).

Distribution: South West Africa; South Africa: KGNP — Twee Rivieren (D. Brown & J. J. Cillie); Kameelsleep (J. J. Cillie); Kij-Kij (A. J. Prins).

2. *C. simulans* For.

Type Locality: Prince of Wales Bay, S.W.A. (Schultze).

Distribution: Rhodesia; South Africa: Cape Province: Laingsburg; KGNP — Twee Rivieren (A. J. Prins).

BONTEBOK NATIONAL PARK.

Heavy rains in June 1964 during the first survey trip in the Bontebok Park limited the number of specimens that could be collected at the time and a second survey four months later under almost similar conditions produced only four more species.

Only four species of Ponerine ants were collected of which *Hagensia peringueyi saldanhae* is the most numerous. This ant has previously been found near Saldanha Bay and near Ysterfontein in the Darling District and was believed to occur in this area only. The latter record, however, is doubtful as only an apterous male was found.

The harvester ants *Tetramorium quadrispinosum* and *T. pusillum mos-samedensis* are fairly common while *T. sericeiventre* and *T. setuliferum* commonly found in the Kruger Park are absent. *Ocymyrmex* could not be found although it is almost certain that this genus does occur in this area as *O. barbiger* Em. is very numerous near Swellendam and Heidelberg. The genus *Pheidole* is represented by one species, *Ph. capensis* which is very similar to *Ph. megacephala*, but may be distinguished from the latter by the longer head and by the second node which has the sides obtusely spinose; in *megacephala* the sides of the second node are merely angular.

Other species which are very well represented are the fire ants *Solenopsis punctaticeps*, Peringuey's Cocktail Ant, *Crematogaster peringueyi*, the pugnacious ants *Anoplolepis custodiens* and *A. steingroeveri*, the small black sugar ant *Acantholepis capensis* and the red ants *Dorylus helvolus* which are responsible for high mortalities among other ants and termites.

The spotted sugar ant *Camponotus maculatus* is also fairly common of which two types exist according to the setal pattern of the head (Prins 1963). The subspecies *liengmei* of the Bontebok Park belongs to the *importunoides* group, characterised by the presence of four setae on the vertex and by numerous hairs on the cheeks, while ants of the same subspecies from the Kruger Park have only two setae on the vertex; the cheeks being devoid of setae.

The widely distributed *Technomyrmex albipes foreli* seems to be the only Dolichoderine ant present, the Argentine Ant *Iridomyrmex humilis* Mayr being absent, although this ant occurs in Swellendam. As a well-known household pest it is aphidicolous, tending harmful coccids, mealiebugs and aphids and should be watched for very carefully.

Of the 75 samples collected 14 could not be identified, and in 25 samples the subspecies or varieties remain unknown.

A. SUBFAMILY DORYLINAE LEACH
GENUS DORYLUS FAB.

D. helvolus L. (A. J. Prins; A. Boonzaaier).

B. SUBFAMILY PONERINAE LEP.

I. GENUS EUPONERA FOR.
E. wroughtoni For. (A. J. Prins).

II. GENUS HAGENSIA FOREL
(South African).

H. peringueyi Em. subsp. *saldanhae* Arnold

Type Locality: Saldanha Bay, Cape Province.

Distribution: South Africa: Cape Province: Jacob's Bay (A. J. Prins; J. J. Cillie); De Doorns; Paternoster (A. J. Prins); BBNP (A. J. Prins; A. Boonzaaier).

III. GENUS *LEPTOGENYS* ROGER

Subgenus *Lobopelta* Mayr

L. nitida Sm.

Type Locality: Durban, Natal.

Distribution: Rep. of the Congo; South Africa: Natal: Estcourt (R. C. Wroughton); Stamford Hill (l. Trägaordh); Shivyre (4000 ft.) (Haviland); Eshowe; Drakensberg; Cape Province: Ladismith (H. Brauns); BBNP — (A. J. Prins).

IV. GENUS *ANOCHECUS* MAYR

(Tropicopolitan, Mediterranean).

A. levillanti Em.

Type Locality: Hammanskraal, Transvaal (E. Simon).

Distribution: Eritrea; Rhodesia; South Africa: Cape Province: Robinson Pass; Swartdorings near Van Rhynsdorp; BBNP. — (A. J. Prins).

C. SUBFAMILY *MYRMICINAE* LEP.

I. GENUS *MESSOR* FOREL

M. barbarus L. subspecies and varieties unknown (A. J. Prins).

II. GENUS *PHEIDOLE* WESTW.

Ph. capensis Mayr subspecies and varieties unknown.

The type locality is the Cape Peninsula. One subspecies and three varieties are known which occur in Mocambique and in South Africa in: Orange Free State: Bloemfontein (E. Simon); Reddersburg (H. Brauns); Transvaal: Makapan (E. Simon); Oshoek; Lydenburg (J. H. Grobler); Natal: Mhlasinga (J. H. Grobler). Cape Province: Willowmore (H. Brauns); Cape Town; Kimberley (E. Simon); Majuba Neck (G. Arnold); Rosmead; Rawsonville; Romans River; Artois; Lessingshoogte near Middelburg; Piquet Berg (J. J. Cillie); Stil Bay; Hermanus; Swellendam; Heidelberg; Cape Point; Riviersonderent; Cango Caves; Oudtshoorn; Kommetjie; Houhoek pass; Riversdale; Buffel's Bay; Darling; Albertinia; Robinson Pass; De Rust; Herbertsdale; Blouberg Strand; Camfer; Koeël Bay; Koperfontein; Straussplaas near Calvinia; Pools near Piquet Berg; Ladismith; Robben Island (A. J. Prins); BBNP — (A. J. Prins, J. J. Cillie, A. Boonzaaier).

III. GENUS *CREMATOGASTER* LUND

Subgenus *Acrocoelia* Mayr

1. *Cr. delagoensis* For. subspecies and varieties unknown.

The type locality of the species is Delagoa Bay, Mocambique. It was found so far in Natal in Weenen and in the Cape Province in Montagu and in the BBNP (A. J. Prins).

2. *Cr. peringueyi* Em. subspecies and varieties unknown.

The type locality of the species is Cape Town and with its two subspecies and two varieties it occurs in Natal in Pietermaritzburg (R. Bayer); New Hanover (C. B. Hardenburg); Durban (C. B. Cooper); and Quedeni (J. H. Grobler). In the Cape Province it was collected on Robben Island (A. J. Prins); in Simonstown (E. D. Thomas); Kuilsrivier (E. Bahlmann); Jeffreys Bay; Moorreesburg (J. J. Cillie); Piquet Berg (A. Boonzaaier); Philadelphia; Kommetjie; Jacob's Bay; Stil Bay; Saldanha Bay; Hopefield; Riversdale; Ashton; Gouritz River Mouth; Lamberts Bay (A. J. Prins); Port Alfred (Hewitt); Steinkopf (L. Schultze); Périe Forest (G. Rogers); Port Nolloth (L. Schultze; A. J. Prins); and in the BBNP (J. J. Cillie). It is also found in South West Africa.

IV. GENUS SOLENOPSIS WESTW.
(Cosmopolitan).

S. punctaticeps Mayr subspecies or varieties unknown.

The type locality of the species is Table Mountain, Cape Town and five subspecies and four varieties are known to occur in the Rep. of the Congo; Kenya; Eritrea; Guinea; Mocambique; Angola; Botswana and Rhodesia. In South Africa it is found in: Natal: Pietermaritzburg; Balgowan (I. Trägaordh); Estcourt (R. C. Wroughton); Cathedral Peak (G. Arnold); Shivyre (Haviland); Durban (Marley; C. B. Cooper). Orange Free State: Bothaville (H. Brauns); Transvaal: Mariepskop (J. H. Grobler); Pretoria (E. Simon); Tshakhuma (A. Boonzaaier). Cape Province: Cape Town (G. Arnold); Port Elizabeth (H. Brauns); Grahamstown (Hewitt; A. J. Prins); Cape Point; Albertinia; Great Brak River; Bredasdorp; Gouritz River Mouth; Port Beaufort (A. J. Prins); BBNP — (A. J. Prins; J. J. Cillie).

V. GENUS TETRAMORIUM MAYR

1. *T. pusillum* Em. var. *mossamedensis* For.

Type Locality: Between Cubango and Cuito Rivers, Mossamedes, Angola (Baum & Van der Kellen).

Distribution: Rhodesia; South Africa: Cape Province: BBNP — (A. J. Prins).

2. *T. quadrispinosum* Em. subspecies and varieties unknown.

The type locality of the species is the Cape Peninsula and four subspecies and two varieties are known which occur in Angola, Mocambique, South West Africa and in South Africa in: Natal and in the Cape Province: Cape Town (E. Simon; G. Arnold); Willowmore (H. Brauns); Middelburg; Bree River (J. J. Cillie); East London; Keurbooms River (A. de Weerdt); Elgin; Paarl (J. D. Ethelston); Jacob's Bay; Kamieskroon; Stompnose Cove; Cape Point; Stellenbosch; Riviersonderent; Mamre; Hopefield; Riversdale; Gouritz River Mouth; Port Alfred; Drie Rivieren; Bulshoek near Clanwilliam; Van Rhynsdorp; Langebaan; Wolseley (A. J. Prins); BBNP — (A. J. Prins; J. J. Cillie; A. Boonzaaier).

D. SUBFAMILY DOLICHODERINAE FOREL
GENUS TECHNOMYRMEX MAYR

T. albipes Sm. subsp. *foreli* Em. (A. J. Prins).

E. SUBFAMILY FORMICINAE LEP.

1. GENUS ANOPLOLEPIS SANT.

Subgenus *Zealleyella* Arn.

1. *A. steingroeveri* For. (A. J. Prins; J. J. Cillie).
2. *A. custodiens* Sm. (A. J. Prins).

II. GENUS ACANTHOLEPIS MAYR

A. capensis Mayr. subspecies and varieties unknown (A. J. Prins; A. Boonzaaier).

This species was found to prey on *Dorylus helvolus*, *Messor barbarus* — ?, *Pheidole capensis* — ?, *Tetramorium quadrispinosum* Em., and *Sima*, species near *clypeata* Em., as well as on small spiders.

III. GENUS CAMPONOTUS MAYR

(a) Subgenus *Tanaemyrmex* Ashm.

1. *C. maculatus* F. subsp. and varieties unknown.
(A. Boonzaaier).
2. *C. maculatus* F. subsp. *liengmei* For. varieties unknown.
(A. J. Prins; A. Boonzaaier).
3. *C. maculatus* F. subsp. *liengmei* For. var. *importunoides* For.

Type locality: Smithwinkel Bay, Cape Province (E. P. Phillips).

Distribution: South Africa: Hermanus; Bredasdorp; Elgin; Cape Point; Keurbooms River; Wolseley; Robinson Pass (A. J. Prins); Simonstown (E. D. Thomas); Cape Town; Kleinmond Strand; Albertinia (F. Honiball); BBNP — (J. J. Cillie).

(b) Subgenus *Myrmopiomis* Wheeler

(c) *C. fulvopilosus* De G. (A. J. Prins; J. J. Cillie).

ACKNOWLEDGEMENT.

I am indebted to the Parks Board Officials and the Wardens of the various Reserves for assisting with the surveys and also for their keen interest in the project.

REFERENCES

Prins, A. J. (1963) — A list of the ants collected in the Kruger National Park with notes on their distribution. Koedoe No. 6, pp. 91-108.

Prins, A. J. (1964) — A revised list of the ants collected in the Kruger National Park. Koedoe No. 7, pp. 77-93.

Prins, A. J. (1965) — Ants of the Kruger National Park. Koedoe No. 8, pp. 104-108.

TABLE 1.
THE DISTRIBUTION OF THE VARIOUS GENERA IN SOUTH WEST AFRICA
(S.W.A.), SOUTHERN RHODESIA (S.R.), BOTSWANA (BECH.) AND THE
SOUTHERN PART OF MOCAMBIQUE (S.M.)

GENUS	S.W.A.	S.R.	BECH.	S.M.
	sp. ssp. var.	sp. ssp. var.	sp. ssp. var.	sp. ssp. var.
<i>Acantholepis</i>	+	+	+	+
<i>Aenictus</i>		+		+
<i>Anoplolepis</i>	+	+	+	+
<i>Bothroponera</i>		+		+
<i>Brachyponera</i>		+		
<i>Camponotus</i>	+	+	+	+
<i>Cataulacus</i>	+	+		+
<i>Crematogaster</i>	+	+	+	+
<i>Dorylus</i>	+	+	+	+
<i>Euponera</i>				
<i>Leptogenys</i>		+		+
<i>Leptothorax</i>		+		+
<i>Megaponera</i>		+		+
<i>Mesoponera</i>		+	+	
<i>Messor</i>	+	+		
<i>Monomorium</i>	+	+	+	+
<i>Myrmicaria</i>	+	+	+	+
<i>Ocymyrmex</i>	+	+	+	
<i>Odontomachus</i>	+	+	+	+
<i>Ophthalmopone</i>	+	+		+
<i>Pheidole</i>	+	+	+	+
<i>Plagiolepis</i>		+	+	+
<i>Platythyrea</i>		+	+	
<i>Plectroctena</i>	+	+	+	+
<i>Polyrachis</i>			+	+
<i>Ponera</i>		+		
<i>Sima</i>		+	+	+
<i>Solenopsis</i>		+	+	+
<i>Tapinoma</i>	+	+		
<i>Technomyrmex</i>	+	+		+
<i>Tetramorium</i>	+	+	+	+
<i>Xiphomyrmex</i>	+	+		

ABLE 2.

THE DISTRIBUTION OF THE VARIOUS SPECIES IN THE KRUGER PARK,
 KALAHARI GEMSBOK PARK, BONTEBOK PARK AND HLUHLUWE AND UMFOLOZI GAME RESERVES.

		KRUGER PARK	KALAHARI PARK	BONTEBOK PARK	HLUHLUWE & UMFOLOZI
		sp., ssp. or var.	Sam-ples taken	sp., ssp. or var.	Sam-ples taken
Dorylinae	Dorylus	fulvus badius	1	helvolus	helvolus
		helvolus	5		5
	Aenictus	unknown	2		
	eugenii	1			
Ponerinae	Anochetus	unknown	1	levaillanti	krügeri
	Bothropnera	crassa crassior	4		14
	krügeri	7			
	soror	6			
Brachyponera	Euponera	sennaarensis	1	wroughtoni	soror
		u. known	3		8
	Hagensia				
	Leptogenys	cribrata	1		
Megaponera				peringueyi saldanhae	3
	Mesoponera	foetens	3		
	Odontomachus	caffra	9		
	Ophthalmo- pone	haematodes	6		
Platythyrea		berthoudi	13	nitida unknown	1
		lamellosa			
		rhodesiana	5	hottentotta	1
		mocquerysii			
		matopensis	1		

	KRUGER PARK	KALAHARI PARK	BONTEBOK PARK	HLUHLUWE & UMFOZOZI
	sp., ssp. or var.	Sam-ples taken	Sam-ples taken	Sam-ples taken
Platythyrea	schultzei	2		
Plectroctena	mandibularis	2		
	dulcis	1		
	bifoveolata	2		
Pseudomyrmicinae	natalensis	2		
	unknown	1	unknown	1
	baumi batonga	1		
Myrmicinae	Catulacus	4		
	rugosus			
	rugosus krugeri	1		
	unknown	1		
Crematogaster	amita caffra	1		
	castanea busschotisi	1		
	castanea rufonigra	4		
	castanea rufonigra var?	2		
	castanea var?	1		
	gerstaekeri bulawayensis	1		
	gerstaekeri var?	3		
	melanogaster	2		
	gerstaekeri var?	1		

		KRUGER PARK	KALAHARI PARK	BONTEBOK PARK	HLUHLUWE & UMFOZOI
		sp., ssp. or var.	Samples taken	sp., ssp. or var.	Samples taken
Crematogaster	transvaalensis	1		peringueyi var?	2
	unknown	12	unknown	unknown	5
	angulatus	3			unknown
Leptothorax					2
Messor	barbarus capensis	1	barbarus capensis	5	1
	barbarus var?	1		barbarus var?	1
Monomorium	albopilosum thales	6			
	afrum	7			
	delagoensis	2			
	delagoensis junodi	2			
	delagoensis pretoriensis	3			
				delagoensis	1
				pretoriensis	1
				delagoensis var?	7
	distinctum leviceps	1			
	emeryi	2			
	prossae	2			
	setuliferum	2			
	unknown	9	unknown	1	unknown
Myrmicaria	fusca nigerrima	1			
	fusca nigerrima var	1			
	natalensis eumenoides	9			
Ocymyrmex	weitzeckeri var?	14	weltzeckeri var?	10	
Pheidole	crassinoda	4		capensis var?	8
	crassinoda ruspolii	2			crassinoda ruspolii
					1

		KRUGER PARK			KALAHARI PARK			BONTEBOK PARK			HLUHLUWE & UMFOLOZI		
		sp., ssp. or var.	Sam-ples taken	sp., ssp. or var.	Sam-ples taken	sp., ssp. or var.	Sam-ples taken	sp., ssp. or var.	Sam-ples taken	sp., ssp. or var.	Sam-ples taken	Apidi-co-lous	
Myrmicinae	Pheidole	liengmei	5									2	
		megacephala impressifrons	9										
		megacephala punctulata	27										
		megacephala rotundata	7										
		prelli	4										
		prelli redbankensis	1										
		sculpturata rhodesiana	3										
		tenuinodis	3										
				tenuinodis var?	1								
		unknown	22	unknown	2	unknown	1	unknown	7				
Solenopsis	Tetramorium	unknown	1					punctaticeps var?	4				
		gladstonei											
		seposita	1										
		gladstonei	1										
	sericeiventre femoratum	18	sericeiventre continentalis var?	1				sericeiventre var?	1	sericeiventre var?	9		
	sericeiventre var?	1											

		KRUGER PARK	KALAHARI PARK	BONTEBOK PARK	HLUHLUWE & UMFOLOZI
		sp., ssp. or var.	Samples taken	sp., ssp. or var.	Sam-ples taken
		setuliferum	12	solidum	1
Myrmicinae	Tetramorium	unknown	2	solidum var?	3
		unknown	11	unknown	1
	Triglyphothrix	3		unknown	1
	Xiphomyrmex	weitzeckeri	1		1
Dolichoderinae	Tapinoma	arnoldi	1		unknown
		voeltzkowi			2
	Technomyrmex	rhodesiae	1		
	Acantholepis	albipes foreli	6	albipes foreli	1
		capensis hirsuta	1		
		elevata			
		capensis leavis	2		
		capensis incisa			
Formicinae		validiuscula	6	capensis var?	1
		submetallica		capensis var?	3
		unknown	2		
	Anoplolepis	custodiens	1	custodiens	1
		trimeni	8	steingroeveri	4
		unknown	4		
	Camponotus	grandidieri		fulvopilosus	5
		ruspolfii rollei	4		
		maculatus	9		maculatus
		maculatus lacteipennis	3		maculatus lacteipennis
					maculatus liengmei importunoides
					1

		KRUGER PARK	KALAHARI PARK	BONTEBOK PARK	HLUHLUWE & UMFOLOZO
		sp., ssp. or var.	Sam-ples taken	sp., ssp. or var.	Sam-ples taken
Formicinae	<i>Camponotus</i>	maculatus liengmei var?	12	maculatus liengmei var?	9
		maculatus hannaë	5	maculatus hannaë	1
		maculatus var?	7	maculatus var?	3
		mayri	1		
		mayri var?	1		
		petersi janus	2		
		robechii rhodesiana	2	rufoglaucus vestita	
				rufoglaucus vestita	1
		rufoglaucus vestita intuens	15	rufoglaucus vestita intuens	4
		rufoglaucus zulu	3	rufoglaucus zulu	8
Plagiotelepis	<i>Plagiotelepis</i>	rufoglaucus var?	3	rufoglaucus var?	3
		sericeus	3		
		olivieri var?	1		
		unknown	10	unknown	1
		pygmaea bulawayensis	3	unknown	6
		gagates indefinita	1	unknown	2
		schistacea	12	schistacea	5
		rugulosa	4	rugulosa	4
		schlüteri	1		
		spinicola	1		
Polyrachis	<i>Polyrachis</i>	unknown	1		