

A Survey of the Dragonflies (Odonata) of South Africa. Part 2 Anisoptera

by

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SYSTEMATIC CHECK LIST

ANISOPTERA Selys

GOMPHIDAE Banks

Genus *Ictinogomphus* Cowley, 1934: 274

Type-species *Ictinus ferox* Rambur (1842)

I. ferox Rambur, 1842: 173 (Senegal)

Holotype ♀ in *MNHN* from Senegal

I. pugnax (Selys, 1854) is only a minor variation of *ferox*.

BC *Nat* – Richards Bay xii.1957, xii.1959

NMB *Nam* – Lake Liambezi, Caprivi xii.1961 (G. Guy)

Nat – Mica, Drakensberg 4-14.xii.1977; Ndumu Game Reserve 8.iii.1970

Tvl – Albasini dam, Louis Trichardt 11.xii.1978. (Pinhey); Entabeni forest Res., Louis Trichardt 10.xii.1978 (Pinhey & Mhlanga); Huwi PNR, Ellisras 3.xii.1977 (R. Chimwendo); Klipfontein 7.xii.1979 (C. Car)

PU *Tvl* – Malelane; Pretoria

TM *Nat* – Hudley xi.1948 (Pinhey) *Tvl* – Pretoria ii.1949 (Pinhey)

USNM *Nat* – Inyazane river, Hudley xii.1948 (Pinhey)

Allanson *et al.* (1974) found it at lake Sibaya, Zululand.

DISTRIBUTION. Pools, streams or large rivers where there are copious, firm fringing reeds, or stout twigs, as perches. Namibia. Natal to Transvaal, north to E. and W. tropical Africa.

Genus *Gomphidia* Selys, 1854: 86Type-species *Gomphidia t-nigrum* Selys (1854, India)**Gomphidia q. quarrei** (Schouteden, 1934): 57 (Zaire)Holotype ♂ in *TMB*.*Plant Prot. Inst., Pretoria Tvl* – Skukuza, Kruger Park 21.i.1984 (M. W. Mansell)

DISTRIBUTION. Flowing rivers fringed with reeds or bushes. Transvaal to Zaire.

A coastal race in Moçambique.

Genus *Lestinogomphus* Martin, 1912a: 484Type-species *Lestinogomphus angustus* Martin (1912)**L. angustus** Martin, 1912a: 484 (Sikasso and Kenya)Holotype ♂, allotype in *MNH* from Sikasso, Mali= *Africanus* (Fraser, 1926): 355 (Sierra Leone), Holotype ♂ (damaged) and allotype in *BMNH* from Sierra Leone*BC Nat* – Enseleni River, Richards Bay 2.i.1960*PU Nat* – Richards Bay ii.1938*TM Nat* – Hudley xi.1948 (Pinhey) *Tvl* – Pretoria ii.1949 (Pinhey)

DISTRIBUTION. Amongst foliage of woodland or forest near streams or rivers. Natal, Transvaal, north to E. and W. equatorial Africa.

Genus *Notogomphus* Hagen, in Selys, 1858: 119Type-species *Gomphus rueppeli* Selys (1858, Ethiopia)**N. praetorius** (Selys, 1878): 447 (106, sep.) (Transvaal)Lectotype ♂ in *BMNH* from White River, Eastern Transvaal*BC Tvl* – Swartkop, Johannesburg 23.i.1955*BMNH Tvl* – Lectotype, as above*HC Cape* – Witteklip*NMB Nat* – Drakensberg 16.xii.1952; Kambula 5.iii.1960; Nqutu 16.ii.1961 (all Newton)*Tvl* – Woodbush xii.1966 (Pinhey)*RSM Cape* – Stutterheim i.1908 (M. Fountaine)*SAM Nat* – M'Fongosi xii.1916 (W. E. Edwards) *Tvl* – Barberton ii.1912 (H. Edwards)*SMF Nat* – xii.1911 (W. E. Jones)*SUC Nat* – Amanzimtoti iv.1916, xi.1917 (M. S. Adams)*TM Nat* – Kloof xii.1948 *Tvl* – Woodbush xii.1907

Keistamma road, Stutterheim, Cape, 27.xii.1983 (Duke & Pinhey).

DISTRIBUTION. Near streams or pools fringed with grass or other low vegeta-

tion. E. Cape, Natal, Transvaal, north to Zimbabwe, Moçambique, Zambia, East Angola and Shaba (Zaire).

Genus *Neurogomphus* Karsch, 1890: 374, 380

Type-species *Neurogomphus fuscifrons* Karsch (1890, Kamerun)

A genus awaiting revision by R. Cammaerts.

N ? vicinus Schouteden, 1934: 66 (Shaba = Katanga)

TM *Tvl* – Pafuri, Kruger N. Park i.xii.1961 (Vári & Potgieter)

DISTRIBUTION. Flies in grassland close to rivers. Transvaal, north to Shaba (Zaire).

Genus *Phyllogomphus* Selys, 1854: 62 (34, sep.)

Type-species *Phyllogomphus aethiops* Selys (1854, equat. West Africa)

P. brunneus Pinhey, 1976: 555 (Botswana, Okavango swamps)

Holotype ♂, allotype, Four Rivers camp, Okavango xii.1975 (Pinhey)

Pl. Prot. Inst., Pretoria *Tvl* – Hans Merensky Nat. Res. xi.1981 (R. G. Oberprieler); Skukuza, Kruger Park 21.i.1984 (M. W. Mansell)

DISTRIBUTION. Flies in or over bush or trees fringing swamps or rivers. Transvaal, Zimbabwe, Botswana and Zambia.

Genus *Crenigomphus* Selys, 1892: 12,97

Type-species *Crenigomphus denticulatus* Selys (1892, Ethiopia)

C. cornutus Pinhey, 1956b: 83 (Victoira Falls)

Holotype ♂, allotype in *BMNH* from Mosi-oa-Tunya (Vict. Falls), Zambezi Riv. i.1956 (Pinhey)

BC *Tvl* – Kruger Nat. Park

BMNH Types, as above

NMB Paratype ♂. *Nam* – Andara Mission, Caprivi iii.1974 (Pinhey & de Moor)

DISTRIBUTION. Grassland near rivers. Namibia; Transvaal; Zambezi River, Botswana and Zambia.

C. hartmanni (Förster, 1898): 166 (Transvaal)

Holotype ♂ in *AAM* from Komatipoort, Transvaal

AAM Holotype, as above

NMB *Cape* – Quinera Riv., E. London 24.xi.1979 (N. Duke); Witrand, Warren-ton 20.i.1980 (F. C. de Moor)

Nat – Ladysmith 30.xii.1951, 12.xi.1952; Nzuzi Valley 12.iv.1952, 9.iii.1954 (all A. H. Newton)

RSM *Cape* – Stutterheim i.1908 (M. Fontaine)

SAM *Nat* – M'Fongosi iii, xi, xii.1911, iii.1914, xii.1916 (W. E. Jones)

Tvl – Barberton (—)

ZMUL Cape – Michells Pass, Ceres 12.ii.1951 (P. Brinck)
Dwarf females at Montagu, Cape xi.1983 (Pinhey) were probably this species.
DISTRIBUTION. Sparse bush or open grassland, near streams or pools. Cape, Natal, Transvaal, north to Zambia, East Angola and Tanzania.

Genus *Ceratogomphus* Selys, 1854: 42

Type-species *Ceratogomphus pictus* Hagen, in Selys (1854)

C. pictus Hagen, in Selys, 1854: 42 (23, sep.) (Cape)

- Holotype ♂ in *ZMHU* from Cape Province (Ludwig Krebs)
- BMNH** TK – “Transkei” Nat Nagana Res. Lab., Zululand
Tvl – Johannesburg
- DC** Cape – Jonkershoek, Stellenbosch
- HC** Cape – van Stadens Pass; Witteklip
- LM** Tvl – Pretoria 10.ii.1949 (Pinhey)
- NMB** Nat – Drakensberg 2.xii.1949; Kambula 10.xii.1949; Ladysmith 16.x.1952
(all Newton)
Tvl – Bundu Inn, Groblersdal 23.iv.1973; Heidelberg 16.xii.1979 (Empey);
Klipfontein 9.xii.1979 (C. Car); Outlook Est., Soutpansberg
5.xii.1978 (Pinhey & Mhlanga)
- PU** Tvl – Hartebeespoort dam i.1977; Loskop dam iii.1972; Pretoria v.1971
- RSM** Cape – Kingwilliamstown i.1908 (M. Fountaine)
- SAM** Cape – Blue, Cliff, Dunbrody ii, iii.1912; Diep River ii.1891; Waterval,
Tulbagh x.1900
- TM** TK – “Transkei” (—)
Nat – Amanzimtoti iv.1916; Hudley xi, xii.1948 (Pinhey); Nagana Res.
Lab.
OFS – Bloemfontein 12.xii.1972; Kalkfontein dam 19.xii.1972; Modder
River 25.xi.1973; Rusfontein dam 25.xii.1973 (O. Bourquin); Zas-
tron 21.xii.1973 (Bourquin)
Tvl – Johannesburg; Pretoria
- ZMHU** Holotype, as above
- ZMUL** Nat – Natal Nat. Park, Tugela Valley 3, 5.iv.1951 (P. Brinck)
Abundant at Montagu and around E. London, Cape, xi–xii.1983 (Pinhey)
DISTRIBUTION. Usually common near grassy or rocky pools or streams. Cape
to Natal, Transvaal, north to Zambia and Shaba (Zaire).

C. triceraticus Balinsky, 1963: 252 (Cape)

- Holotype ♂ in *TM* from Great Berg River, Fransch Hoek, S.W. Cape
21.i.1962 (B. I. Balinsky)
- BC** Paratype ♂, as above
- BMNH** Cape – Hex River xii.1934 (♂; no. 554)
- NMB** Cape – Couga Mtns, Uniondale 8.xii.1969; junction of Malmesbury &
Melkbosch Strand roads 1.xii.1968 (C. G. C. Dickson); Robertson
Karoo, Doorn River 19.xi.1964

TM Holotype, as above
 DISTRIBUTION. A south-west Cape endemic of similar habits to *pictus*.

Genus *Paragomphus* Cowley, 1934: 201

Type-species *Gomphus cognatus* Rambur (1842)

P. cognatus (Rambur, 1842): 167 (*loc. incerta*)

Holotype ♀ in *MNHN* (*sine loc.*) (Distinctly Afrotropical)

- BMNH** Cape – Ceres Nat – Durban Tvl – White River
DC Cape – Jonkershoek, Stellenbosch
HC Cape – Grahamstown
MNHN Holotype, as above
NMB Nat – Drakensberg xi.1949; Ladysmith iii.1952; Mangeni ii.1961; Nqutu i.1958, xi.1960, ii.1961; Nsuzi Valley iv.1952 (all A. H. Newton)
 Swaz – Mantengu Falls 4.i.1975 (de Moor) OFS – Harrismith 20.i.1979
 Tvl – Albasini dam, Louis Trichardt xii.1978 (Pinhey); Klipfontein xii.1979 (C. Car); Outlook Est., Soutpansberg xii.1978 (Pinhey & Mhlanga); Wylies Poort xi.1973 (Pinhey)
PU Tvl – Marico River ii.1973; Carolina ii.1963; Pretoria
SAM Cape – Barkly West xii.1893 (L. Péringuey); St Mathews 1894 (R. Light-foot)
 Nat – M’Fongosi iii.1917 (W. E. Jones)
 Tvl – White River i.1910 (A. T. Cooke); Waterval Boven x, xi.1899
SUC Cape – Kalk Bay xii.1946 (J. H. M. Beck); Riversdal xii.1947
 Nat – Amanzimtoti i.iv.1916 (M. S. Adams)
TM Cape – Ceres Nat – Durban Tvl – White River 1949 (N. P. Mitton)
USNM Tvl – White River xi, xii.1949 (Mitton)
ZMUL Cape – Clanwilliam 8.xi.1950; Michells Pass, Ceres 12.ii.1951; Sevenweeks Poort 5.i.1951 (all P. Brinck)
 Nat – Pietermaritzburg 10.ii.1951 (Brinck)
 Common near Stutterheim, E. Cape xii.1983 (Duke & Pinhey)

DISTRIBUTION. Muddy or rocky pools or streams, in open or in shaded areas, even in dense forest where, in equatorial regions, there is an ecological, melanic race *nguelicus* Förster. Cape, Natal to Transvaal, north to E. and W. equatorial Africa; and Socotra island.

P. dicksoni Pinhey, 1969: 5 (Cape)

Holotype ♀ in *NMB* from Oudebosch, Zonderend River, S.W. Cape 15.xii.1968 (C. G. C. Dickson)

NMB Holotype, as above

DISTRIBUTION. A Cape endemic, whether a distinct species or a subspecies of *cognatus* with a different thoracic pattern.

P. elpidius (Ris, 1921): 346 (Zululand and Zaire)

Holotype ♂ in *SAM* from M’Fongosi, Zululand iii.1914 (W. E. Jones); allotype ♀ in *TMB* from Kapiri, Zaire x.1912, Mission Agric.

- NMB** Nat – Ladysmith 12.i.1952 (Newton) Swaz – Tshaneni 1980 (H. C. Percy)
SAM Holotype, as above. Nat – M’Fongosi iv, v.1934 (W. E. Jones)
SMF Paratype ♂. Nat – M’Fongosi iii, iv.1911 (Jones)
SUC Cape – Cedarberg 20.xii.1979 (G. Giliomee)

DISTRIBUTION. Streams or rivers, preferably in warmer zones. Cape, Natal to Transvaal, north to Shaba (Zaire), Kenya and the Kacheleba, Suk District of Northern Uganda. A wide range of material shows some regional differences in colours of parts of the body, but it is not yet sure if this can be determined on racial grounds: in such an event the allotype might belong to a tropical subspecies.

P. genei (Selys, 1841): 245 (5, sep.) (Europe)

Holotype ♀ in *UTM* from Sicily

P. genei hageni (Selys, 1871): 14, 15, 20 (Egypt), type series, both sexes, in *SCIS*, but not designated.

Although *hageni* has for years been accepted as the African or even the Afro-tropical representative of the European *genei*, it is necessary to realize, as I have emphasized in another paper (with Publ.) that both *genei* and *hageni* are palaeartic and unless European and North African populations show different features the name *hageni* must fall in synonymy. If true *ATA* populations differ from *genei* there are possible names that can be resurrected: *Mesogomphus bitarsatus* Förster (1906), *M. rusticatus* Fraser (1928) or perhaps *Onychogomphus atratus* Selys (1885), if, in fact, this last is conspecific with *genei*.

- BC** Nat – Richards Bay 1959
KCB Swaz – Manzini, Parday Park 23.xi.1976 (J. M. van Brink)
NMB Nam – Zaris farm, Zaris Mtns 6 iii.1975 (de Moor)
 Cape – Grootswartberg, Klaver 14.iv.1968
 Nat – Empangeni 30.xii.1951, 9.v.1952; Ladysmith iii.x.1952 (all A. H. Newton)
 Tvl – Huwi PNR, Ellisras 8.xii.1977 (Chimwendo); Mosdene swamps 5.xii.1976 (de Moor); Pretoria 19.x.1968; Wylies Poort xii.1978 (Pinhey)
PU Cape – Visrivier Canyon Tvl – Thabazimbi
SAM Cape – Dunbrody iii.1912; Vioolsdrift iii.1935 Tvl – Waterval xi.1899
SUC Nat – Amanzimtoti iv.1916, iii.1917 (M. S. Adams)
 Tvl – Limpopo River 12.v.1967
TM Series from Cape; Natal; Transvaal, including Bundu Inn, Groblersdal 23.iii.1974.
 Allanson *et al.* (1974) found it at Lake Sibaya, Zululand; Pinhey found it at Montagu, S.W. Cape xi.1983.

DISTRIBUTION. Pools, streams or rivers; the most abundant of the African Gomphidae. Cape to the Mediterranean, except in dense forest or in abnormal breeding areas for Odonata. Also Socotra Isl., Arabia and southern Europe.

P. sabicus Pinhey, 1950: 270 (Mashonaland)

Holotype ♂, allotype, paratypes in *TM* from Birchenough Bridge, Sabi Valley, Mashonaland i.1938 (G. van Son)

For probable conspecificity with *P. acuminatus* Fraser (1949), described from Zaire and a possible relationship to *Onychogomphus fritillarius* Selys (1892, Madagascar) refer Pinhey, 1966a: 293. If the synonymy should be confirmed *fritillarius* will of course have priority in the specific name.

No examples have been recorded from our region, but examples of probable *acuminatus* have been collected in the Limpopo River Valley in south-east Zimbabwe:

NMB Limpopo River, near Moçambique border, Zimbabwe iv.1961

DISTRIBUTION. Fast streams or large rivers in warm areas. *P. sabicus* is found in Botswana, Zimbabwe and Moçambique; *acuminatus* in Zaire and possibly the Limpopo Valley; *fritillarius* in Madagascar.

Genus *Onychogomphus* Selys, 1854: 30 (93, sep.)

Type-species *Libellula forcipata* Linnaeus (1758, palaeartic)

O. supinus supinus Hagen, in Selys, 1854: 34 (93, sep.) (Caffraria)

Holotype ♂ in *NRS* from Caffraria; other males, undesignated, in *SCIS*.

NMB *Tvl* – Letaba Valley 10.xii.1958

NRS Holotype, as above

SAM *Nat* – M'Fongosi xii.1916, iv, v.1934 (W. E. Jones)

Tvl – Barberton iii.1912 (H. E. Edwards); Kranz kop xii.1908

SCIS Series of males in de Selys collection

SMF *Tvl* – Barberton xi.1918

TM Examples from Natal

DISTRIBUTION. Warm areas but local. The only populations I have found in plenty have been an East African race. Natal, Transvaal north to E. and W. equatorial Africa, with subspecies in Kenya and Tanzania, and in West Africa.

AESHNIDAE Buchecker

Genus *Aeshna* Fabricius, 1775: 424

Type-species *Libellula grandis* Linnaeus (1758, palaeartic)

Note that Illiger's emended spelling, *Aeschna* Illiger (1802), was made redundant by Cowley (1934: 249). However, it is of interest to realize that Mouffet was apparently the first to use the spelling *Aeschna* as early as 1634. Some Odonatists in fact still adhere to that rendering.

A. ellioti usambarica Förster, 1906a: (48, sep.) (Tanganyika)

Lectotype ♂, allotype in **AAM** From East Usambara Mtns, N.E. Tanzania

Nominotypical **ellioti** Kirby (1896: 124, Mt Ruwenzori, coll. Scott & Elliot) is the western race.

NMB *Tvl* – Marieps Mtn iv.1948 (G. van Son); Outlook Est., Soutpansberg 12.xii.1978 (Pinhey & Mhlanga)

- SUC* ?*Cape* – Stellenbosch iv.1939 (W. D. Glaw): requires checking for *minuscula*?
- TM* *Tvl* – Marieps Mtn iv.1948 (G. van Son)
- DISTRIBUTION. Higher montane kloofs or forest. Subsp. *usambarica*, Cape ?, Transvaal north to Kenya and Ethiopia; *elliotti* in Zaire and Uganda.

A. minuscula McLachlan, 1896: 421 (Cape)

Lectotype ♂, allotype in *BMNH* from Cape of Good Hope

- BMNH* Types, as above. *Nat* – Malvern *Tvl* – Johannesburg; Pretoria
- DC* *Cape* – Cape Flats
- HC* *Cape* – Grahamstown
- NMB* *Cape* – Blinkwater stream xii.1975 (Pinhey); above Constantia Nek i.ix.1969; Devils Peak 24.xii.1977 (N. Duke); Franschoek Pass 20.xi.1977 (N. Duke); Hawekwasberg 5.xi.1977 (Duke); Malmesbury 14.v.1971 (Pinhey); Strandfontein 25.x.1969 (Dickson); van Schoors Drift 4.iv.1971
- Nat* – Balgowan iii.1949 (Pennington); Haladu 20.ii.1953; Malvern 6.xi.1941; Nqutu xi.1948, i, x.1949 (all A. H. Newton)
- OFS* – Golden Gate N.P. 27.iv.1977 (N. Duke)
- Tvl* – Benoni 10.xii.1979; Fountains 10.x.1962; Jukskei River, Hartebeespoort dam xi.1956; Heidelberg 16.xi.1979
- PU* *Tvl* – Crocodile Bridge; Pretoria iv.1963
- (RUG)* *Cape* – Grahamstown
- SAM* *Nam* – Otjiwarango i.1920 (R. E. Tucker) *Nat* – M'Fongosi ii.1911 (W. E. Jones)
- Tvl* – Potchefstroom Distr. 1879 (T. Ayres)
- TM* *Cape* – Jonkersberg, Stellenbosch xi.1940 *Nat* – Balgowan 25.xi.1964; Malvern
- Tvl* – Jonkersberg; Pretoria and Fountains xi.1948 (Pinhey)
- ZMUL* *Cape* – Franschoek, Bos Res. i.xi.1951; Gydo Pass, Ceres 12.ii.1951; Table Mtn, Blinkwater stream 15.xii.1950 (P. Brinck)
- Common around Montagu, S.W. Cape, xi.1983 (Pinhey)
- Under the previous species, the Stellenbosch record in *SUC* may belong here.
- DISTRIBUTION. A South African endemic in thick bush or forest, normally at lower elevations than the previous species. Namibia, Cape, Natal to Transvaal. Note that a Kenya record by Martin in 1908 must have been a misidentification of *elliotti usambarica*.

A. rileyi rileyi Calvert, 1892: 164 (N.E. Tanganyika)

Holotype ♀ in *USNM* from Mt Kilimanjaro, N. Tanzania

For many years the more southerly taxon *subpupillata* McLachlan was regarded as a synonym of *rileyi* but they have recently been separated again (Pinhey, 1981b). Most if not all South African records must be referred to the next species. However, they are closely allied and the relationship might eventually be considered subspecific rather than separate species.

A. subpupillata McLachlan, 1896: 422 (South Africa)Lectotype ♂, allotype in *BMNH* from British Caffraria (Natal)

- BMNH* Types, as above. *Nat* – Cathedral Peak
DC Cape – Jonkershoek, Stellenbosch
HC Eastern Cape (as *rileyi*)
KCB Swaz – Road junction north of Magomba, west of Stegi 11.xii.1976 (J. W. Boyes)
NBM Cape – Blinkwater stream, Table Mtn 18.xi.1970 (Pinhey); Stellenbosch 14.xii.1928; du Toits Kloof 10.x.1965 (Dickson)
Nat – Kamberg Nat. Res. 1–6.x.1978; Ladysmith 30.iii.1952 (Newton); Nqutu 15.xi.1948 (Newton)
Tvl – Outlook Est., Soutpansberg 14.xii.1978 (Pinhey & Mhlanga)
PU *Tvl* – Marico River
RSM Cape – Stutterheim i.1908 (M. Fontaine)
SAM Cape – Stellenbosch 1894 (L. Péringuey)
SUC *Nat* – Amanzimtoti 12.iv.1916 (M. S. Adams)
TM Cape – Boskloof 10.x.1954 (de Wet); Jonkersberg xi.1940
Nat – Balgowan 15.xi.1964 (Pennington); Cathedral Peak
Tvl – Sterkfontein xi.1948 (Pinhey)
ZMUL Cape – Blinkwater ravine, Table Mtn 4.xi.1950; Jonkershoek, Stellenbosch 4.ii.1951
Nat – Nat. N.P., Doomey 5.iv.1951 (P. Brinck)

Taken also north of Stutterheim xii.1983 and i.1984 (Duke & Pinhey)

DISTRIBUTION. Bush or forest streams, especially montane. Cape, Natal to Transvaal, and parts of Mashonaland.

Genus *Anaciaeschna* Selys, 1878: 317Type-species *Aeschna jaspidea* Burmeister (1839, Java)**A. triangulifera** McLachlan, 1896: 409 (Moçambique)Lectotype ♂ in *BMNH* from Delagoa Bya, Moçambique

- BC* *Nat* – Umsingazi swamps, Richards Bay xii.1957
BMNH Type, as above. *Nat* – Durban 31.v.1914 (C. Bevis)
DM *Nat* – Umbilo river, Durban 1912 (C. Bevis)
PU *Tvl* – Groblersdal 17.v.1979; Pretoria iii.1979
TM *Nat* – Umbilo River, Durban 1912, ii.1915 (C. Bevis)
 At light, Dukuduku forest, St Lucia 21.i.1984 (N. Duke)

DISTRIBUTION. Warm forest or thick bush; crepuscular, but may fly in hot, sultry, dull weather like *Tholymis*. Natal, Transvaal, north to E. and E. equatorial Africa; and Madagascar.Genus *Hemianax* Selys, 1883: 723 (40, sep.)Type-species *Aeschna ephippigera* Burmeister (1839)**H. ephippiger** (Burmeister, 1839): 840 (India)

Holotype ♂ in MLUH from Madras, India

- BMNH* *Nam* – Waterberg, Otjiwarango
NMB *Tvl* – Benoni i.1979; Huwi PNR, Ellisras xii.1977 (Chimwendo); Klipfontein 5.xii.1979 (C. Car); Mosdene swamps xii.1976 (de Moor); Njelele dam, Messina road 11.xii.1978 (Pinhey)
PU *Tvl* – Germiston; Lichtenburg iv.1971; Pretoria i.1976: Volksrust
SAM *TK* – Port St Johns (—) (G. Shortridge) *Tvl* – Barberton i.1912 (H. Edwards)
SUC *Nat* – Durban xii.1917 (S. G. Rich)
TM Series from Natal, Transvaal. *Nam* – Waterberg Mtns
OFS – Vlakkraal, Modder River 27.xii.1973
 Duke has taken the first Cape record: East London, xi.1983; and xii.1983 (Pinhey & Duke)

DISTRIBUTION. A common, widespread, often migratory species which hawks over pools, streams or rivers; readily distinguished (in Southern Africa) by a prominent pale blue dorsal saddle near the base of the abdomen. Most parts of this continent; southern Europe; islands in the Indian Ocean; western Asia.

Genus *Anax* Leach, 1815: 137

Type-species *Anax imperator* Leach (1815)

(*A. dorsalis* (Burmeister, 1839): 842 (Cape))

Type ♀ from S.W. Cape Province apparently lost

Ris (1921: 439) indicated that it was *A. imperator mauricianus* Rambur, from the description and that the example discussed by Kirby (1898) from Transvaal was not this but *speratus*; whilst Martin (1908) was referring to an American species. I believe Ris was correct and that the missing *dorsalis* was a ♀ *imperator mauricianus*, q.v.)

(*A. georgius* Selys, 1872: 179 (Natal? or Timor, S.E. Asia?))

Holotype ♂ in *SCIS*

Examination of this holotype and its characters clearly indicates that it is not a known African species, so the possibility of a Natal, South Africa, origin is most unlikely. I have not attempted to relate it to Oriental species, Indonesian, Timor island, or even to Natal in South America.)

A. imperator mauricianus Rambur, 1842: 184 (Mauritius)

Type series of *mauricianus* in Rambur collection, *SCIS*, includes undesigned syntypes of both sexes from Mauritius

= *dorsalis* (Burmeister, 1839), as above

A. imperator imperator Leach, 1815: 137 (Europe), type lost

NMB Several localities in Cape, including Ouderbosch, Zonderend River xii.1968; Natal, incl. Dukuduku forest ii.1980; and Transvaal

- PU* Several Transvaal localities incl. Germiston; *OFS* – Trompsburg
SAM *Cape* – East London x.1892 (M. Wolf) *Nat* – Several localities
Tvl – Potchefstroom 1879 (T. Ayres)
SUC *Nat* – Amanzimtoti (J. Davison) *Tvl* – Pretoria
TM Series from Cape, Natal and Transvaal
ZMUL *Nam* – Kowares 3.vi.1951; Sanitatas 15.vi.1951
Cape – near Bredasdorp 1.i.1951; Cape Flats, Varden Vlei and Zeekoevlei
 8.xii.1950, 2.ii.1951; Steenkamp Puts, Upington 24.xi.1950 (P.
 Brinck)

Allanson, *et al.* (1974) found it at Lake Sibaya, Zululand. Dwarf ♀ (abd. 45 mm, hindw. 48 mm), at light, Dukuduku forest, St Lucia, in swamp forest, 4.ii.1984 (N. Duke).

DISTRIBUTION. Widespread at pools, streams or rivers; often migratory. All continental Africa and many neighbouring islands; many parts of Europe and Western Asia.

A. speratus Hagen, 1867: 46 (Cape)

Holotype ♂ in *MCZ* nr. 12307 from Cape of Good Hope.

- DC* *Cape* – Bains Kloof
HC *Cape* – van Stadens Pass
KCB *Swaz* – Kwaluseni ii.1977 (Boyes)
MCZ Type, as above
NMB *Cape* – Vygekraal, Plettenberg Bay 14.ii.1968
Nat – Kloof xi.1958; Nqutu 21.xi.1948, 11.xii.1960 (A. H. Newton)
Tvl – Albasini dam, Louis Trichardt xii.1978 (Pinhey); Klipfontein
 xii.1979 (Car); Outlook Est., Soutpansberg xii.1978 (Pinhey &
 Mhlanga)
SAM *Cape* – Rietfontein x.1904
Nat – M'Fongosi xii.1916 (W. E. Jones); Umhlali i.1912 (K. H. Burmeis)
Tvl – Acornhoek xii.1918 (R. E. Tucker)
SUC *Nat* – Amanzimtoti 28.xi.1917 (M. S. Adams)
TM *Tvl* – Several localities
ZMUL *Cape* – Palmiet River, Kleinmond 20.xii.1950 *Tvl* – Graskop 8.v.1951 (P.
 Brinck)

Harrison (1964) records Silver Mine and Witte River Valleys. East London xi–xii.1983 (Duke & Pinhey).

DISTRIBUTION. Prefers streams or rivers, in bush or woodland. Cape, Natal to Transvaal, north to E. and W. equatorial Africa. It does not normally appear to be a migrant.

A. tristis Hagen, 1867: 35 (Guinea)

Holotype ♀ in *CM* from Guinea (leg. Krieger)

- SAM* *Nam* – Grootfontein 1.1919 (R. M. Lightfoot)

DISTRIBUTION. Pools, streams or rivers, sailing widely over such waters, but will descend to inspect objects; diurnal, but often out at dusk on warm evenings. A powerful flier; one of the largest of African Odonata (one of them an East African

zygopteran). Namibia. Transvaal ?(uncertain record). Botswana across to Moçambique, north to E. and W. equatorial Africa; Madagascar; Aldabra Isl.; Maldive Isl. (in *LM*), and Colombo, Sri Lanka (in *LM*).

Genus *Gynacantha* Rambur, 1842: 209; Selys, 1883: 745

Type-species *Gynacantha nervosa* Rambur (1842, tropical America)

The use of the name *Acanthagyna* Kirby (1890) for this genus at one time is discussed in Pinhey (1962: 197–198). The tendency in recent years has been to revert to the use of *Gynacantha*.

G. manderica Grünberg, 1902: 234 (Kenya)

Holotype ♀ in *ZMHU* from Ukami, near Mandera, Tanzania, v–viii.1894 (Stuhlmann)

BC *TK* – Port St Johns 1958 *Nat* – *Barringtonia* forest, Enseleni river, Richards Bay xii.1957

BMNH *Nat* – Port Natal (Durban)

NMB *Nat* – Ndumi Game Res. 30.iii.1972

Limpopo Valley, north bank: Manica-Moçambique border iv, v.1961 (Pinhey)

TM *Nat* – Ndumi Game res. iii.1972.

DISTRIBUTION. All *Gynacantha* tend to be active at dusk, sometimes at dawn, flying swiftly in warm bush or forest; often disturbed by day but soon settle again. Transkei, Natal; Limpopo Valley north to Somalia, west to Ivory Coast.

G. villosa Grünberg, 1902: 233 (Moçambique–Tanganyika border)

Holotype ♂ in *ZMHU* from Langenburg (coll. Fülleborn) in Moçambique's Nyassa Prov. border with Tanzania

BC *Nat* – Enseleni River, Richards Bay xii.1957

NMB *Nat* – Charters Creek, Lake St Lucia (in Malaise trap) 3.x.1977 (J. G. H. Londt)

DISTRIBUTION. Habits as before, in *manderica*. Natal. Zimbabwe and Moçambique, north to Tanzania, west to Senegal.

G. zuluensis (Balinsky, 1961): 79 (Zululand)

Holotype ♂, allotype in *TM* from Umsingazi swamp, Richards Bay, Natal 1.i.1958 (holot.), 24.xii.1959 (allot.)

BC Paratypes, both sexes

BMNH Paratypes, both sexes

NMB Paratypes, both sexes Umsingazi swamp 23.xii.1959 (B. I. Balinsky)

TM Types, as above

At St Lucia, it was found in *Casuarina* forest by day and Dukuduku forest at light ii.1984 (N. Duke).

DISTRIBUTION. Ecology as in most of the genus. North Natal. Moçambique and Malawi.

CORDULIIDAE Banks

Genus *Syncordulia* Selys, 1882: 168, 169Type-species *Epophthalmia gracilis* (Burmeister, 1839)= *Presba* Barnard, 1933: 167, type-species *Presba venator* Barnard (1933)**S. gracilis** (Burmeister, 1839): 847 (*sine patria*)Holotype ♂ *Chlorosoma gracilis* Burmeister in *MCZ* (*loc. incogn.*)= *Presba piscator* Barnard, 1933: 168 (Cape), lectotype ♂ in *BMNH* from Groot Drakenstein, Cape Prov., xii.1932:The above synonymy was brilliantly uncovered by Liefinck (1960) thus establishing a South-western Cape origin for *gracilis*, at one time assumed to have been from the Australian region.*BMNH* Lectotype *piscator*, as above*MCZ* Holotype *gracilis*, as above*NMB* Cape – Matroosberg 16.xii.1975 (N. Duke); Ouderbosch River, Zonderend 15.xii.1968 (C. G. C. Dickson)

Nat – Catkin Peak 5.x.1948 (A. H. Newton)

(?*SAM* Cape – Paratype, Berg River, Groot Drakenstein xii.1931: specimen not located).

Barnard (1937) also gives Bains Kloof; Breede River, Wellington Mtns v.1933; Ceres iii.1922 (probable larva). The origin of Barnard's specific name 'piscator', after a notable Cape Fisherman, is revealed by A. C. Harrison (1964: 125).

DISTRIBUTION. A swift-flying endemic montane species. Known as a Cape species, the only Natal record is that of Newton in the Drakensberg. Cape, Natal.**S. venator** (Barnard, 1933): 167 (Cape)Lectotype ♂, allotype in *BMNH* from Franschoek, Cape xii.1932 (K. H. Barnard)*BMNH* Types, as above*LM* Cape – Paratype of each sex Fransch Hoek 8.x.1933 (K. H. Barnard)*NMB* Cape – Clanwilliam 17.ix.1977 (N. Duke); Fransch Hoek Pass 20.xi.1975 (N. Duke); Kruis Valley, Buffelsnek forest 22.i.1971 (Dickson); Riebeeck Kasteel Mtn 9.iii.1971*SAM* Numerous paratypes: Fransch Hoek xii.1932 (Barnard); eastern side, Hottentot Holland Mtns i.1933 (Barnard); Orange Kloof, Table Mtn i.1933 (H. G. Wood), i.1934*TM* Cape – Garcia Pass xi.1940; Jonkersberg xi.1940.

Barnard (1937) includes Keeromsberg, Worcester i.1930; Wellington Mtns i.1934; Great Winterhoek Mtns, Tullbagh xi.1932. Harrison & Barnard (1972: 141) record adults at Orange Kloof from November to February.

DISTRIBUTION. An endemic, swift montane flier. Cape Province.Genus *Hemicordulia* Selys, 1870:5Type-species *Cordulia australiae* Rambur (1842, Australia)**H. asiatica** Selys, 1878: 186 (8, sep.)Type series of males believed to be in *SCIS* from Bengal, India.

A new addition to the South African fauna: mid-day in Nkazama forest, Cape Vidal road, St Lucia, 4.ii.1984 (Pinhey); at dusk, Dukuduku forest, 4.ii.1984 (N. Duke); mid-day, same forest 5.ii.1984 (N. Duke), all undersized males.

DISTRIBUTION. Hawks for short distances in forest clearings or glades by day or at dusk. North Natal, Malawi (Pinhey, 1966), Uganda (Pinhey, 1961) and W. Asia. Possibly a migrant.

Genus *Macromia* Rambur, 1842: 137

Type-species *Macromia cingulata* Rambur (1842, India)

M. bifasciata (Martin, 1912a): 96 (Sikasso, Mali and Dakar, Senegal)

Lectotype ♂ in *MNHN* from Dakar, Senegal

This widespread species was at one time mistaken for the similar *M. nyanzana* Grünberg, 1911, (= *reginae* Le Roi, 1915) which appears to be restricted to equatorial Africa.

BC Nat – Richards Bay 1957, 1959

DM Nat – Maputa, 50 km W. of Kosi Bay,

NMB Nam – Andara Mission, Caprivi 27.iii.1974 (Pinhey)

Tvl – Klipfontein 10.xii.1979 (C. Car)

PU Nat – Richards Bay xii.1974

TM Cape – Sevenweeks Poort, Ladysmith xi.1940

Nat – Hudley xii.1948 (Pinhey); Nyalazi River ii.1926

DISTRIBUTION. Steady flight on a circuit in bush near stream or river. Namibia, Cape, Natal, Transvaal, north to E. and W. equatorial Africa.

M. monoceros Förster, 1906b: 319 (Usambara Mtns; Somalia incorrect)

Holotype ♂ in *AAM* from Nguelo, Usambara Mtns, N.E. Tanzania
= *thetis* Ris, 1921: 379, lectotype ♂ in *BMNH* from Chirinda forest, S. Mashonaland 9.x.1905 (G. A. K. Marshall); cotype ♀ in *SAM* from Barberton, Transvaal xii.1911 (H. E. Edwards)

SAM Cotype, as above

DISTRIBUTION. Bush or forest on steady circuits near streams. Transvaal, north to Kenya.

M. picta Hagen, in Selys, 1871: 552 (115, sep.) (Cape)

Holotype ♂, allotype in *NRS* from Cape of Good Hope (coll. Drège)

BMNH Specimens from type series of two synonyms of *picta*: *tropicalis* Selys (1878);
flavicincta Kirby (1898, from Rustenburg W. L. Distant)

HM *OFS* – Bothaville xi.1898 (H. Brauns)

KCB Swaz – Road junction N. of Magomba, W. of Siteki 11.xii.1976 (J. W. Boyes & J. M. van Brink)

- NMB** Cape – Witrand farm, Warrenton 22.xi.1977 (F. C. de Moor)
 Nat – Ladysmith 30.xii.1951 (Newton) Swaz – Manzini 4.x.1970 (Mrs E. Archer)
 OFS – Northfield 18.xii.1977 (Empey) Tvl Outlook Est., Soutpansberg
 4.xii.1978 (Pinhey); Waterpoort road, near Wylies Poort 5.i.1979
 (Pinhey) –
- NRS** Type *picta*, as above
- PU** Tvl – Belfast iv.1971; Letsitele
- RSM** Nat – Eshowe iii.1908 (M. E. Fountaine)
- SAM** Cape – Barkly West iii.1893 (L. Péringuey) Nat – Durban iv.1890 (J. F. Bowker)
 Tvl – Barberton xii.1911 (H. Edwards)
- SCIS** Selys' series of *picta*; and a ♀ of *tropicalis*
- SUC** Tvl – Rustenburg xii.1908 (T. Jenkins)
- TM** Tvl – Rustenburg xii.1908 (Jenkins)
- ZMHU** Cotype ♂ of form *kochi* Grünberg (1911), a melanic forest variant common in equatorial African forests.

Barnard (1937) recorded *picta* from Palmiet River, Kleinmond in 1933 and 1944. Around Montagu, S.W. Cape, xi.1983 (Pinhey).

DISTRIBUTION. Bush or forest, often more erratic in flight than most species of this large genus. Cape, Natal to Transvaal, north to E. and W. equatorial Africa. (*Macromia sophia* Selys (1871): this large, jet black species marked with a single golden thoracic band, was originally described from Cape Coast Castle, which is in Ghana. It is confined to dense forests of central and equatorial Africa. The mention of this species in Pinhey (1951: 193) was irrelevant.)

LIBELLULIDAE Tillyard

Genus *Tetrathemis* Brauer, 1868: 182, 639, 727

Type-species *Tetrathemis irregularis* Brauer (1868, Philippines)

T. polleni (Selys, 1869): 18, 20 (Madagascar)

2 ♂ in *SCIS* from Madagascar, not designated as types
 = *carpenteri* Fraser (1941: 140), holotype ♂ in *BMNH* from Entebbe, Uganda vii.1921 (G. D. H. Carpenter)

This is only a physiological condition of *polleni* during maturation. In *MNHN* there is a *polleni* labelled by Selys 'Neophlebia partita Selys', presumably an earlier, discarded name.

- BC** Nat – Richards and St Lucia Bays 1957, 1959
- BMNH** Type of *carpenteri*. Nat – Hudley 28.xi.1948 (Pinhey)
- DM** Nat – Amanzimtoti i.1917
- NMB** Nat – Charters Creek, Lake St Lucia (in Malaise trap) 3–10.x.1977 (J. G. H. Londt); Hudley xi.1948 (Pinhey); Ramsgate, Blue Lagoon xi.1979 (Pinhey)
- SAM** Nat – Hudley x, xi.1948 (Pinhey)
- TM** Nat – Hudley xi, xii.1948 (Pinhey); Illovo iii.1926.

USNM *Nat* – Hudley xi, xii.1948 (Pinhey)
 East London xii.1983 (Pinhey & Duke); and Neville Duke collected it near
 the Bashee River, Transkei vi.1983

DISTRIBUTION. Well-shaded pools or very sluggish, shaded parts of streams in
 bush. Flight frequently papilionoid. Natal. Mashonaland and Moçambique, north to
 E. and W. equatorial Africa; Madagascar and Comoro islands. No apparent racial dif-
 ferences.

Genus *Notiothemis* Ris, 1919: 1053

Type-species *Notiothemis jonesi* Ris (1919)

N. jonesi jonesi Ris, 1919: 1054 (Tanganyika)

Holotype ♂ in *RSM* from Bulwa, East Usambara Mtns, Tanzania (in Morton
 Collection.)

SAM *Nat* – M'Fongosi Mission v.1911 (W. E. Jones)

East London, xii.1983 (Pinhey & Duke), the first Cape record; Pietermaritz-
 burg, Natal, 11–15.ii.1984 (Pinhey)

DISTRIBUTION. Bush or forest streams and pools; shy and alert like many true
 forest Anisoptera, especially subfam. Tetratheminae. E. Cape, Natal. Zimbabwe and
 Moçambique, north to Kenya and Shaba (Zaire); with a Uganda subspecies.

Genus *Orthetrum* Newman, 1833: 511

Type-species *Libellula coerulea* Fabricius (1798, Italy: palaeartic)

In *TM* and *NMB* *Orthetrum* identifications made in 1948 (Pinhey, 1951) were
 rechecked at later dates. African species revised by Pinhey (1970b).

O. abbotti abbotti Calvert, 1892: 162 (Tanganyika)

Holotype ♂, allotype in *USNM* from Mount Kilimanjaro, northern Tanzania

HC *Cape* – Port Elizabeth

KCB *Swaz* – Big End iii.1977, 24.iv.1977 (Boyes); Kwalusene 11.xi.1976 (J. W.
 Boyes)

NMB *Cape* – Witrand farm, Warrenton iii.1979 (F. C. de Moor)
Nat – Albert Falls xi.1958 (Newton); Ingwavuma ii.1979; Nqutu i, xii.1949
 (Newton)
Swaz – Mbabane 20.x.1960 (A. H. Newton)
Tvl – Klipfontein xii.1979 (C. Car); Louis Trichardt 19.xii.1976 (Pinhey);
 Outlook Est., Soutpansberg xii.1978 (Pinhey); Pilgrims Rest iii.1978
 (F. C. de Moor)

PU *Tvl* – Castle Gorge 3.iii.1979; Hazyview; Loskop dam 29.iii.1972; Nel-
 spruit

SAM *Nam* – Otiovango River xii.1887 (A. W. Eriksson)
Nat – M'Fongosi iv.1911, iv.1917 (W. E. Jones)

SMF *OFS* – Botchabelo ii.1914 (H. A. Junod)

- SUC* Nat – Nels Rust, Pietermaritzburg 24.iv.1916
TM Tvl – Boukenhout Kloof xii.1910; Sandfontein i.1911
USNM Tvl – 9 km north of Warmbad 24.ii.1968 (Spangler & Kronbein)
 Kiauta & van Brink (1977) examined specimens from Kwaluseni, Swaziland.
 DISTRIBUTION. Widespread at streams and pools in bush country. Namibia, Cape, Natal, Transvaal, north to E. & W. equatorial Africa; subsp. *malgassicum* Pinhey (1970b) in Madagascar.

O. brachiale (Palisot de Beauvois, 1817); 171 (Oware)

Four example (both sexes) in *SCIS* from Oware (Owerri), Benin.

- BC* Nat – St Lucia Bay xii.1979
NMB Nam – Andara, Caprivi 27.iii.1974 (Pinhey & de Moor)
 Nat – Empangeni 23.iii.1950 (A. H. Newton); Lake St Lucia 30.iii.1975 (R. C. Dening)
SAM Nam – Tsumeb i.1923 (S.W. Africa Museum Expedition)
SUC Nat – Amanzimtoti 10.v.1916 (J. Davison)
ZMUL Cape – Hout Bay 28.i.1951; Langeberg, Tradouw Pass 4.i.1951; Tzitzikama forest 13.i.1951 (all P. Brinck)

DISTRIBUTION. Bush, woodland or light forest, but usually much commoner further north in tropical Africa. Namibia, Cape, Natal to Transvaal, north to E. and W. equatorial Africa; and some islands in the Indian ocean.

O. cafferum cafferum (Burmeister, 1839): 856 (Port Natal)

Holotype ♂, allotype in *MLUH* from Port Natal (Durban)

- HC* Cape – van Stadens Pass
KCB Les – Roma 4.ii.1975 (J. W. Boyes)
MLUH Types as above
NMB Cape – Brackenfell iv, xii.1976 (N. Duke); Katzenberg Hill, Mamre ix.1972; Swaerhoek, Somerset East x.1978; Tigerberg x.1964 (Dickson); van Schoors Drift iv.1971; Witrand farm, Warrenton x, xi.1977 (de Moor)
 Nat – Little Switzerland, Drakensberg ii.1980; Mont-aux-Sources ii.1980; Nkandhla iv.1961 (Newton); Nqutu i.1958, iv, vi.1961; Qudeni iv.1951 (all A. H. Newton)
OFS – Clocolan i.1966 (H. N. Empey)
 (NMB) Tvl – Benoni xi.1979; Heidelberg xii.1979; Honey Dew vlei i.1972 (Empey); Roodepoort xi.1979; Woodbush xii.1966 (Pinhey)
PU Tvl – Bronkhorstpruit iii.1970, iii.1982; Kaapmuiden 13.iv.1979; Middleburg iv.1970, ii.1974; Onderstepoort; Pretoria v.1970, iv.1971, i.1978; Vaal dam i.1975
SAM Nam – Grootfontein i.1920 (R. Tucker)
 Cape – Caledon Distr. xii.1894 (T. B. Butler); Rietfontein x.1904.
SUC Cape – Hermanus i.1925 (C. K. Brain); Stellenbosch iv.1927 (F. Beyers); Swellendam xii.1922 (C. J. Joubert)
 Tvl – Soutpansberg iii.1910 (C. B. Hardenberg)
TM Series from Cape, Natal, Transvaal. *OFS* – Vlakkraal, Modder River 27.xii.1975

- ZMUL** Cape – Ladismith 5.i.1951; Rhodes 9.iii.1951
 Les – Hensleys dam, Leribe 30.iii.1951; Nazareth 24, 26.iii.1951
 Nat – Albert Falls 13.iv.1951; Nat. N. Park 3, 7.iv.1951 (all P. Brinck)
 Also, Stutterheim, E. Cape 27.xii.1983 (Duke & Pinhey).

DISTRIBUTION. Abundant at pools or streams in South and East Africa, less so in West tropical Africa. Namibia, Cape, Natal to Transvaal, north to equatorial Africa where *camerunense* Gambles (1959) appears to represent the western race; and Madagascar.

O. chrysostigma chrysostigma (Burmeister, 1839): 857 (Teneriffe)

Holotype ♂ said to be in *MLUH* from Teneriffe, Grand Canaria (but in a letter, 29.xi.1963, the late Dr K. F. Buchholz, at that time revising the genus *Orthetrum*, informed me he had been unable to find the holotype in the Halle-Wittenberg Museum.)

- KCB** Les – Roma 5.ii.1975 (J. W. Boyes) Swaz – Kwaluseni 2.xi.1976, xii.1976 (Boyes)
 Tvl – Elephant camp, Kruger N. P. 27.xi.1976 (J. M. van Brink)
- LM** Tvl – Waterpoort, Soutpansberg 3.v.1958
- NMB** Series from Cape, including Kakamas 23.iii.1963; Natal and Transvaal.
 Nam – Andara, Caprivi 27.iii.1974 (Pinhey & de Moor); hills near Guchab Station 11.iii.1975 (F. C. de Moor) *OFS* – Parys, Vaal River 4.ii.1979
- PU** Cape – Several localities incl. Batu Malan TK – Port St Johns
 Swaz – Endhalazana; Piggs Peak iv.1931
 Tvl – Several localities incl. Malelane; Marnitz; Mopane; Premier Mine
- SUC** Cape – Stellenbosch iv, x.1927 (F. Beyers)
- TM** Series from Cape, Natal and Transvaal
- ZMUL** Nam – Sanitatas 15.vi.1951 (Brinck)
 Cape – Many localities from Cape Peninsula to van Stadens Pass

DISTRIBUTION. One of the commonest African *Orthetrum* in the open, in bush or light woodland but not in dense forest. Pools, streams or rivers. Cape to Mediterranean coast of North Africa; some neighbouring islands; Syria and Sinai; and subsp. *toddii* Pinhey (1970b) in Sierra Leone.

O. guineense Ris, 1910: 207 (Angola)

- Holotype ♂ in *SMF* from Benguela, W. Coast of Angola
- NMB** Tvl – Hanglip, Waterberg 9.xii.1976 (de Moor); Mosdene swamps 5.x.1976 (de Moor)
- PU** Cape – Batu Malan, Kalahari
- SAM** Nat – M'Fongosi iv.1917 (W. E. Jones); Umhhlali i.1913 (K. H. Barnard)
 Tvl – White River xii.1909 (A. T. Cooke)
- SUC** *OFS* – Edendale 19.ix.1918
- TM** Nam – Otjikango iv.1948 (C. Koch) Cape – Belvedere iii.1921
 Nat – Hudley xii.1948 (Pinhey); Warmbaths xii.1910
- USNM** Tvl – Rustenburg x.1963 (A. L. Moore); Tzaneen, Morenski dam 8.ii.1968 (Spangler & Kronbein)

DISTRIBUTION. Local in Southern Africa, sometimes numerous, at pools or streams. Namibia, Cape, Natal to Transvaal, north to E. and W. equatorial Africa.

O. hintzi Schmidt, 1951: 171 (Guinea)

Holotype ♂ in *AHT* from Coast of Guinea Bisau (leg. Hintz); allotype (Longfield) in *BMNH* from Dundo, North Angola iii.1949

= *zernyi* Schmidt, 1951: 178, holotype ♂ in *MW* from Songea, southern Tanzania: this is only the mature male of *hintzi*, the male type of which was immature.

KCB Swaz – Kwaluseni xii.1976, 20.iii.1977 (J. W. Boyes)

NMB Nat – Hudley xi.1948 (Pinhey); Ramsgate 18.xi.1979 (Pinhey)

Tvl – Hanglip, Waterberg 9.xii.1976 (de Moor); Klipfontein 9.xii.1979 (C. Car); Mosdene swamps 5.xii.1976 (de Moor); Rustenburg 4.xii.1979; Woodbush xii.1966 (Pinhey)

TM Nat – Hudley xi, xii.1948 (Pinhey)

Found at St Lucia estuary, 28.i.1984 (Pinhey).

DISTRIBUTION. Warmer areas at streams in bush or forest. Natal to Transvaal, north to E. and W. equatorial Africa.

O. icteromelan cinctifrons Pinhey, 1970b: 302 (Mashonaland)

Holotype ♂, allotype of *cinctifrons* in *NMB* from Salisbury (now Harare), Zimbabwe xi, xi.1956 (Pinhey)

O. icteromelan (icteromelas) Ris, 1910: 197 (Madagascar), type series in *SCIS* not designated

BC Nat – Umsingazi swamp, Richards Bay xii.1957

BMNH *Tvl* – Boksburg (C. H. Pead)

NMB Types of continental race *cinctifrons*. Nat – Kambula 10.xii.1949 (A. H. Newton)

Tvl – Huwi PNR, Ellisras 4.xii.1977 (Chimwendo); Mosdene swamps 4.xii.1976 (de Moor)

PU *Tvl* – Middelburg ii.1974

SAM *Tvl* – Boksburg (C. H. Pead)

In swamps off Cape Vidal road, St Lucia, 30.i & 9.ii.1984 (N. Duke & Pinhey)

DISTRIBUTION. Streams or pools in open country, grassland or bush; evidently commoner to the north of the Limpopo. Natal to Transvaal, north to E. and W. equatorial Africa; nominotypical subspecies in Madagascar and Mauritius.

O. julia falsum Longfield, 1955: 26 (Mount Kenya)

Holotype ♂, allotype in *BMNH* from Thoura forest, Meru, Mt. Kenya 1934

O. julia Kirby, 1900: 75 (Sierra Leone, etc.), lectotype ♂, allotype in *BMNH* from Sierra Leone

In some of those areas where *julia* and *falsum* meet, from Zambia to Uganda, there must be a tendency for cross-breeding since along this north-south central line the populations are confused: possibly influenced by the presence (formerly, at least) of heavy forest of the west, which in parts is now diminishing.

In western Cape there is a distinctive subspecies:

- capicola* Kimmins, 1957: 95 (nom. nov. pro *capense* Calvert, nec Linnaeus). Holotype ♂ of *capense* Calvert in USNM from S.W. Cape; allotype ♀ in BMNH
- BC Nat – Richards Bay xii.1957; St Lucia Bay xii.1959
- BMNH Types of *julia* and *falsum*, allotype *capense*
- DC Cape (as *stemmale capense*) Cape Flats; Jonkershoek, Stellenbosch
- KCB (*falsum*) Swaz – Road junction, north of Magomba, west of Siteke 11.xii.1976 (J. W. Boyes); Usutu forest 13, 15.v.1977 (Boyes)
- LM (*falsum*) Cape – Port Elizabeth, Humewood 5.i.1961 (A. C. van Bruggen)
Nat – Durban 8.iii.1939 (J. J. van der Starre)
- NMB (*falsum*) E. Cape – Quinera River, E. London xi.1979 (N. Duke); Kommetjie xi.1977
- TK – Port St Johns 7.vii.1963 (A. J. Duke)
Nat – Dukuduku forest ii.1980; Empangeni iii.1950 (Newton); Eshow iv.1978; Kloof xi.1958 (Newton); Nkandhla i.1961; (Newton); Nkwaleni iv.1958; Nqutu i.1949, ii.1961; Port Shepstone x.1960; Qudeni iv.1951 (all Newton); Port Elizabeth Park, Pietermaritzburg x.1978 (Londt); Southbroom xi.1979 (Pinhey); Umtambuna F. R. xi.1979 (Pinhey) Swaz – Mantengu Falls i.1975 (F. C. de Moor)
- Tvl – Albasini dam, Louis Trichardt xii.1978 (Pinhey); Fountains, Pretoria xii.1950 (Capener); Hanglip forest, Louis Trichardt i.1979 (Pinhey); Klipfontein xii.1979 (C. Car); Njelele dam, Messina road xii.1978 (Pinhey); Outlook Est., Soutpansberg xii.1978 (Pinhey & Mhlanga); Swartkop, Krugersdorp ii.1972 (Empey); Woodbush xii.1966 (Pinhey)
- (*capicola*)
- W. Cape – Blinkwater stream, Table Mtn xi.1970, iv.1971, x.1974, iii, x, xii.1975 (Pinhey & C. G. C. Dickson); Constantia iii.1980 (D. K. B. Wheeler); Elgin Apple farm, Grabouw iii.1980 (Wheeler); Fish Hoek i.1977 (Pinhey); Franschhoek Pass xi.1977 (N. Duke); Hawekwasberg xi.1977 (N. Duke); Keurbooms River i.1970 (Cottrell); Kirstenbosch x, xi.1970, iii.1975 (Pinhey), ii.1980; Kruisvalley, Buffelsnek x.1970 (Mrs A. Archer); Muizenberg i.1952; Prince Alfred Pass x.1970; Rosebank i, ii.1975 (A. J. Prins); Spitzkop, Knysna xii.1969; Table Mtn iv.1976 (Dickson); du Toits Kloof ii.1959 (Dickson); Vyeboom x.1975; Waterval, Tulbagh xi.1975; Zuurvlakte, Wolseley iv.1975
- PU Cape (*capicola*) Cambria; Ceres x, xi.1920 Swaz – (*falsum*) Endhalazana
- Tvl – (*falsum*) Dullstroom 16.i.1970; Hazyview 6.v.1979; Klasserie; Lomati Est., Komatipoort; Magoebaskloof; Marico i.1973; Mariepskop 16.iii.1979; Nelspruit; Olifantsnek dam vi.1975; Pretoria 5.vi.1961; Sibasa; Tzaneen; Warmbad v.1975; Zeerust iii.1969
- SAM (as *stemmale capense*)
- Cape – Groenvlei Kloof 1907 Nat – M'Fongosi xii.1912, iv.1917 (W. E. Jones)
- TM (*falsum*) Series from Natal and Transvaal
- USNM Holotype of *capense*. (*capicola*) Cape – Cape of Good Hope Nat. Pres. 7–10 iii.1968 (P. J. Spangler)

ZMUL (as *stemmale capense*) (*falsum*) *Nat* – Hluhluwe G. R. 18.iv.1951 (P. Brinck)

DISTRIBUTION. Streams, rivers or pools in bush, woodland or forest. Subsp. *capicola* is abundant in S.W. Cape in open or in bush; *falsum*, E. or northern Cape, Natal to Transvaal, north to Somalia and Ethiopia; *julia* from N. Zambia, Angola and Zaire to equatorial West Africa.

Note. *O. stemmale* (Burmeister, 1839) is a separate species found from the Zambezi River northwards to equatorial Africa and to Mauritius and Seychelles.

O. machadoi Longfield, 1955: 35 (Angola)

Holotype ♂ and allotype (*in copula*) in *BMNH* from Dundo, North Angola 13.xii.1947

BC *Nat* – Richards Bay xii.1957; St Lucia Bay xii.1957

NMB *Nat* – Eshowe 25.ix.1949; Kambula 2.iii.1950; Nondweni 6.xi.1949 (all A. H. Newton)

Tvl – Benoni 6.xii.1979; Entabeni forest res., Louis Trichardt 10.xii.1978 (Pinhey & Mhlanga); Huwi PNR, Ellisras 4.xii.1977 (Chimwendo); Outlook Est., Soutpansberg xii.1978 (Pinhey & Mhlanga)

PU *Nat* – Amanzimtoti *Tvl* – Bronkhorstspuit iii.1982; Nelspruit

TM *Nat* – Umzimkulu Valley, Paddock

DISTRIBUTION. Pools, swamps and sluggish streams. Swamp populations tend to be the melanotic form *rhodesiae* Pinhey (1960), described from Zambia and the normal form in the Okavango delta of Botswana.

O. robustum Balinsky, 1965: 3 (Botswana and Natal)

Holotype ♂, allotype in *TM* from Richards Bay, Natal 29.xii.1957

BC Paratype ♂ from Umsingazi swamp, Richards Bay xii.1957

(*NMB* Series of both sexes from the Okavango swamps, Botswana)

TM Types, as above. *Nat* – Ndumu Game Res. 29.xii.1963

DISTRIBUTION. Pools, swamps or slow streams in bush. Natal, N.W. Botswana and Zambia (Pinhey). The wide separation between north Zululand and Okavango populations suggests that there may be intermediate marshy zones where it occurs. The Zambian link with the Okavango delta populations would probably be across Barotse-land.

O. rubens Barnard, 1937: 242, 246 (S.W. Cape)

Holotype ♂, allotype (paratypes of both sexes from other localities) in *SAM* from Kirstenbosch Botan. Gdns, Cape i.1923 (R. L. Lawrence)

BMNH Paratype ♂ Kirstenbosch. *Cape* – Great Winterhoek Mtn xi.1932 (K. H. Barnard)

NMB *Cape* – Hawekwasberg 5.xi.1977 (N. Duke); du Toits Kloof 31.x, 5.xi.1976 (Duke)

SAM Types, as above; paratype ♂ Great Winterhoek, Tulbagh Mtn xi.1932 (Barnard), paratype ♀ Kirstenbosch i.1927 (Lawrence); and paratypes Michells Pass, Ceres x.1934, and Tradouw Peak i.1935 (K. H. Barnard)

Another of Barnard's localities (1937) was Fransch Hoek Pass x.1936. An interesting feature of this remarkable species is the prominent waxy coating of the wings, giving a smoky yellowish tone, generally well into maturity. This wax surface vanishes rapidly if the specimen is placed on or near a warm heater, like blue or white waxy body pruinescence. Other Odonata may have intense yellow or orange wing markings, including Cape forms of some *Trithemis*. These orange areas may diminish with age or they may remain, but they are not rapidly removed by heat. Is there possibly an ecological explanation, perhaps in the past history of *rubens*, which resulted in some benefit from a wax surface over the wings?

DISTRIBUTION. I have not seen *rubens* in life but Neville Duke said it flew rapidly on montane slopes. A south-west Cape endemic.

O. trinacria trinacria (Selys, 1841): 244 (Europe)

Type ♂ from Sicily, not found in SCIS.

BC Nat – Umsingazi Lake, Richards Bay 1957, 1959

DC Cape – Zeekoevlei i.1977 (J. Davey)

NMB Cape – Zeekoevlei ii, iii.1977 (Davey) Nat – Spion Kop xii.1949 (A. H. Newton)

Tvl – Benoni iv.1979 (Empey); Huwi PNR, Ellisras xi.1977 (R. Chimwendo); Klipfontein 3.xii.1979 (C. Car); Mosdene Swamps xii.1976 (de Moor); Njelele dam, Lukin Ranch, Messina road xii.1978 (Pinhey)

PU Tvl – Breyten i.1973; Germiston iii.1971; Hartbeespoort dam iii.1954; Nelspruit; Pretoria iv.1980; Pretorius Kop; Roodeplaat dam iii.1978, iii.1980; Vaalwater ii, iii.1980, iv.1982

SAM Tvl – Isando, Johannesburg (C. H. Pead)

TM Nat – Hudley xi.1948 (Pinhey); Kosi Bay vii.1948 Tvl – Pretoria iii.1964

Montagu xi.1983 (Pinhey) and E. London xii.1983 (Duke & Pinhey)

DISTRIBUTION. Large pools or lakes, rivers, in rather flat, more or less open, dry areas; behaving more like a large gomphid in settling on sturdy reeds and in its low steady flight. Cape, Natal, Transvaal, north to the Mediterranean coast; a race in Iraq.

Genus *Nesciothemis* Longfield, 1955: 59

Type-species *Orthetrum farinosum* Forster (1898)

N. farinosa (Förster, 1898): 169 (Transvaal)

Lectotype ♂ in AAM from Komatipoort, N.E. Transvaal

AAM Type, as above –

BC Nat – Richards Bay xii.1957

KCB Tvl – Elephant camp, Kruger N.P. 27.xi.1976 (J. M. van Brink)

NMB N. Cape – Kuruman 1 350 m 9.xii.1973

Nat – Ladysmith i.1963; Nkweleni v.1978 Swaz – Eranchi 15.xii.1954, 5.i.1955 (Newton)

Tvl – Albasini dam, Louis Trichardt xii.1978 (Pinhey); Bundu Inn, Groblersdal iv.1973 (Pinhey); Huwi NPR, Ellisras xii.1977 (Chimwendo); Letsitele Valley 10.xii.1950, 16.xii.1958; Woodbush xii.1966 (Pinhey)

- PU* Tvl – Loskop dam; Pretoriuskop; Letsitele iii.1970; Mopane iv.1978
SAM Cape – Blue cliff, Dunbrody ii, iii.1912; Waterval xii.1899
SMF OFS – Botchabelo ii.1914 (H. A. Junod)
SUC Nat – Amanzimtoti iii.1917 (M. S. Adams); Durban vii.1920 (F. Sutherland)
TM Series, Natal, Transvaal. Also OFS—Rayton, Bloemfontein 28.x.1973; Vlakkraal 4.xii.1973
USNM Tvl – Pretoriuskop 20.ii.1968 (Spangler & Krombein); N. of Warmbad 24.ii.1968 (Spangler & Krombein)
ZMUL Nat – Pietermaritzburg 10.ii.1951 (P. Brinck)
 Allanson, et al. (1974) found it at lake Sibaya, Zululand. Barnard (1937) found it in Kalk Bay Mountains. All around East London it was a dominant libellulid, xi, xii.1983 (Duke & Pinhey).

DISTRIBUTION. Common at pools, swamps, streams or rivers, in open or bush country. Cape, Natal, Transvaal, north to E. and W. equatorial Africa; Sudan and Egypt.

Genus *Palpopleura* Rambur, 1842: 26, 129

Type-species *Palpopleura vestita* Rambur (1842, Madagascar)

P. deceptor (Calvert, 1899): 241 (Somalia)

Holotype ♂ in *PAS* from Sheikh Hussein, in Somalia

- NMB* Swaz – Eranchi 5.i.1955 (A. H. Newton) Tvl – Rustenburg iii.1950
TM Tvl – Rustenburg iii.1950

DISTRIBUTION. At pools in warm areas with fringing vegetation. Swaziland, Transvaal, north to Somalia and to equatorial West Africa.

P. jucunda jucunda Rambur, 1942: 134 (Cape)—

♀ without abdomen in *SCIS* from Cape, not seen

- BMNH* Cape – Knysna
DC Cape – Cedarberg Mtns v.1977 (J. Davey)
KCB Swaz – Usutu forest 24.iv.1977 (J. W. Boyes)
NMB Cape – Witrand farm, Warrenton iii, xi.1978 (F. C. de Moor)
 Nat – Albert Falls ix.1958 (Newton); Empangeni v.1952; Eshowe ix.1949; Hattingh Spruit v.1960 (all Newton); Kloof Falls ix.1979; Nqutu v.1948 (Newton); Pietermaritzburg iv.1962 (K. M. Pennington); Pongola Bush N.R. ii.1979; Qudeni iv.1961 (Newton) Swaz – Mankaiana x.1960 (A. H. Newton)
 Tvl – Alldays i.1976; Hanglip, Waterberg xii.1976 (de Moor); Honey Dew i.1972 (Empey); Klipfontein xii.1979 (Car); Outlook Est., xii.1978 (Pinhey & Mhlanga); Pretoria x.1968; Rustenburg xii.1951
PU Nat – Mbane; Melmoth Swaz – Endhalazana; “Swaziland” iv.1981
 Tvl – Blyde Poort v.1972; Britz ii.1981; Bronkhorstspuit ii.1982; Bundu Inn, Groblersdal iii.1974; Kaapmuiden iii.1967; Louis Trichardt i.1963; Mara; Marnitz; Naboomspruit iv.1980; Onderstepoort

- iii.1948; Percy Fyfe iv.1981; Premier Mine v.1976; Pretoria i.1976; Pretoriuskop ii.1981; Pumulani xi.1981; Rustenburg iv.1939; Swabuanose iv.1981; Thabazimbi ii.1980; Vaalwater iii.1980
- SAM** Cape – Rietfontein x.1904; Waterval xi.1910 *Nat* – M’Fongosi iv.1911 (W. W. Jones)
- Tvl* – Potchefstroom 1879 (Purcell)
- SCIS** Selys’ undesignated female –
- SMF** *OFS* – Botchabelo ii.1914 (H. A. Junod)
- SUC** Cape – Stellenbosch 5.iv.1921 (C. K. Brain), 24.iv.1924 (F. Beyers)
- Nat* – Amanzimtoti iv, v.1916 (Jadenzima)
- TM** Series from Cape, Natal and Transvaal
- USNM** *Tvl* – White River v.1949 (N. P. Mitton)
- ZMUL** *Nam* – Sanitatas 15.vi.1951 *Les* – Hensleys dam, Leribe 30.iii.1951
- Nat* – Albert Falls 13.iv.1951; Natal N. Park 7.iv.1951 (P. Brinck)
- Montagu, S.W. Cape, xi.1983 (Pinhey).

DISTRIBUTION. Vleis and swampy verges of pools or streams, sometimes montane streams or marshes. Namibia, Cape, Natal to Transvaal, north to E. and W. equatorial Africa; with subspp. *radiata* Pinhey (1982a) in Sudan and Ethiopia.

P. lucia (Drury, 1773): 82 (♀ Sierra Leone)

- Form *portia* (Drury, 1773): 86 (♂ Sierra Leone)
- Types of both *lucia* and *portia* are apparently lost
- KCB** *Swaz* – Kwaluseni 22.iii.1977 (Boyes); Manzini 20.xi.1976 (J. M. van Brink)
- LM** *Nat* – Charters Creek camp, St Lucia 18.iii.1975 (A. C. van Bruggen)
- NMB** *Nat* – Empangeni iii.1950, v.1952 (A. H. Newton); Eshowe x.1949 (Newton); 15 km W. of Ingwavuma ii.1979; Lake St Lucia iii.1975 (R. C. Denning); St Lucia estuary ii.1979; Southbroom xi.1979 (Pinhey); Umhlanga Rocks xi.1955 (C. G. C. Dickson)
- Swaz* – Eranchi 5.i.1955 (A. H. Newton)
- Tvl* – Wylies Poort x.1968 (Pinhey)
- PU** *Nat* – Camperdown; Durban ii.1891; St Lucia v.1936 *Swaz* – Endhalazana
- Tvl* – Blyde Poort; Brits vi.1977; Castle Gorge iii.1979; Crocodile–Marico River junction ii.1918; Giyani viii.1975; Karino 8.iii.1967; Loskop dam iii.1981; Malelane; Marnitz; Mopane iv.1978; Nelspruit; Onderstepoort; Percy Fyfe iv.1981; Premier Mine; Pretoria ii.1965; Pretoriuskop ii.1981; Thabazimbi; Warmbad v.1975
- SAM** *TK* – Port St Johns (—) (G. B. Shortridge)
- Nat* – Durban 1879 (J. H. Bowker), ii.1891 (T. B. Nutler); M’Fongosi iii, xii.1911 (Jones)
- Tvl* – Letaba–Olifants River junction 1888 (H. Barber)
- SUC** *Nat* – Amanzimtoti v.1916, iii–xi.1917 (M. S. Adams); Durban v.1911
- TM** Series from Natal and Transvaal

Allanson, et al. (1974) found it at Lake Sibaya, Zululand.

Variation in wing markings. Investigations have shown that *portia* is no more than a form of *lucia*, the distinction being in the male, the females of the two overlap-

ping, often indistinguishable. Both forms may be found at the same pool, but they have preferences, form *lucia* tending to warmer, tropical or subtropical conditions. In equatorial West Africa where form *lucia* is normally dominant another male form distinctly intermediate in pattern between *lucia* and *portia* is quite numerous. Is this an ecological forest variant?

DISTRIBUTION. Pools, lakes, quiet stretches of streams or rivers, wherever there are firm grasses, reeds or sedges on which to perch. Transkei, Natal to Transvaal, north to E. and W. equatorial Africa. Records from Madagascar appear to be only incorrect identification of the Madagascar type-species *vestita* Rambur, endemic to that island.

Genus *Chalcostephia* Kirby, 1889: 258, 293

Type-species *Chalcostephia flavifrons* Kirby (1889)

C. flavifrons flavifrons Kirby, 1889: 337 (Angola)

Holotype ♂ om *BMNH* from Angola

AAM (Williamson Colln.) *Nat* – Umbilo road, Congella 22.x.1904 (G. F. Leigh)

BC *Nat* – Enseleni River and Umsingazi Lake, Richards Bay xii.1957, xii.1959

DM *Nat* – Lake Nklabane, Richards Bay, at light-trap, xii.1979 (S. Afric. Sugar Assocn.)

NMB *Nat* – St Lucia estuary 22.ii.1979 (J. G. H. Londt)

Allanson, et al. (1974) found it at Lake Sibaya, Zululand. Common in swamp, St Lucia estuary, i, ii.1984 (N. Duke & Pinhey).

DISTRIBUTION. Pools, streams or swamps in warm areas, sometimes in large numbers. Natal. Botswana, north to E. and W. equatorial Africa; subsp. *spinifera* Pinhey in Madagascar.

Genus *Hemistigma* Kirby, 1889: 263, 295

Type-species *Libellula albipuncta* Rambur (1842)

H. albipuncta (Rambur, 1842): 93 (Senegal)

2 ♂ and a ♀ said to be in Rambur Collection, *SCIS* from Senegal, not found

BC *Nat* – Richards and St Lucia Bays xii.1957

NMB *Nam* – Andara, Caprivi 27.iii.1974 (Pinhey & de Moor)

Nat – Empangeni ii.1950; Eteza iii, ix.1953 (all Newton); Green Hill farm, Ramsgate xi.1979 (Pinhey); Hudley xi.1948 (Pinhey); Lake St Lucia iii.1975 (R. C. Denning); Port Shepstone x.1960 (Newton); Richards Bay xi.1970 (Pinhey); Tugela River mouth 1961; Umhlanga Rocks xi.1955 (C. G. C. Dickson)

Tpl – Mosdene swamps xii.1976 (F. C. de Moor)

SAM *Nam* – Otiembora xi.1887 (A. W. Eriksson)

SUC *Nat* – Amanzimtoti iv.1916, xi.1917 (M. S. Adams)

TM *Nat* – Hudley xi, xii.1948 (Pinhey); Nyalazi River xi.1926; Umhlakuzi River, Empangeni xii.1925

There is also a record for Barberton, Transvaal, but the deposition of this example has not been traced.

DISTRIBUTION. Thick bush or woodland, near or remote from pools or streams; in some areas, such as Moçambique it is the dominant libellulid in such places. Namibia, Natal, Transvaal, north to E. and W. equatorial Africa.

Genus *Acisoma* Rambur, 1842: 28

Type-species *Acisoma panorpoides* Rambur (1842, India)

A. panorpoides ascalaphoides Rambur, 1842: 29 (Madagascar)

Two ♀ in *SCIS* from Madagascar, Rambur collection, type not designated

Subsp. *panorpoides* Rambur, 1842: 28 (Bengal); Oriental race

Subsp. *inflata* Selys (1849); North Africa

Type of *panorpoides* said to be lost; the Rambur series of *inflata* is said to be in *SCIS* but is probably not designated

BC Nat – St Lucia Bay xii.1959

NMB Nat – Hudley xi.1948 (Pinhey); Kambula i.1950 (Newton)

Tvl – Klipfontein xii.1979 (C. Car); Mosdene swamps xii.1976 (de Moor)

PU *Tvl* – Malelane; Warmbad

SAM *Nam* – Otiembora xi.1887 (A. W. Eriksson)

TM *Nam* – Otjikango v–vi.1948 (C. Koch)

Nat – Hudley xi, xii.1948 (Pinhey) *OFS* – Vlakkraal 4.xii.1973 (O. Bourquin)

Allanson, *et al.* (1974) recorded it from Lake Sibaya, Zululand.

DISTRIBUTION. Pools, sluggish streams or quiet margins of rivers, settling preferably on *Nymphaea* leaves or other floating vegetation when available. Namibia, Natal, Transvaal north to the Mediterranean coast; with *ascalaphoides* in Madagascar, *inflata* chiefly in palaeartic North Africa and *panorpides* in Asia.

Genus *Diplacodes* Kirby, 1889: 263, 307 (species revised in Pinhey, 1976b)

Type-species *Libellula tetra* Rambur (1842: *vide infra*)

D. deminuta Lieftinck, 1969:32 (Zambia)

Holotype ♂, Samfya, Lake Banqweulu, Zambia, allotype ♀, Kasamba River

NMB *Nat* – Lake St Lucia, 30.iii.1975 (F.C. de Moor).

Tvl – Klipfontein, 3.xii.1979 (Falcon Coll. Exp.)

DISTRIBUTION. Reedy or grassy pools, temporary swamp. North Natal, Zimbabwe, Moçambique, Zambia; and possibly East African records (Pinhey, 1961) formerly attributed to the Madagascar species *D. exilis* Selys.

D. lefebvrei lefebvrei (Rambur, 1842): 112, 117 (Egypt)

Specimens of both sexes said to be in *SCIS* from Egypt, not designated, the ♀ from Bahryeh Oasis not found.

I regard *tetra* as the insular race, but continental specimens sometimes vary towards it: *tetra* Rambur (1842), holotype ♂ in Marchal Collection, *HDO*, from Mauritius

- NMB** *Nam* – Andara, Caprivi 27.iii.1974 (Pinhey)
N. Cape – Witrand farm, Warrenton 31.x.1978 (de Moor)
Nat – Charters Creek, St Lucia (Malaise trap) ii.1979 (Londt); Durban & Bluff; Kambula (Newton); Ladysmith; Ndumu Game Res.; Rams-gate (Pinhey)
Swaz – Eranchi 15.xii.1954 (Newton)
Tvl – Huwi PNR, Ellisras xi.1977 (Chimwendo); Jozini dam; Klipfontein xii.1979 (Car); Mosdene swamps xi.1976 (F. C. de Moor)
- PU** *Tvl* – Brits vi.1977; Warmbad
- SAM** *Tvl* – Potchefstroom (—) (T. Ayres)
- TM** Series from Natal and Transvaal. *OFS* – Vlakkraal 27.xii.1973
- ZMUL** *Nam* – Omutati 5.vi.1951 (P. Brinck)

DISTRIBUTION. Widespread, often abundant at pools and quiet verges of streams or rivers. Namibia, northern Cape, Natal, Transvaal, north to palaeartic North Africa and many neighbouring islands; race *tetra* in Madagascar and Mauritius.

Genus *Crocothemis* Brauer, 1868: 367, 736

Type-species *Libellula erythraea* Brullé (1832)

C. divisa Karsch, 1898: 342 (Togo)

Syntype ♂ & ♀ in *ZMHU* from Misahöhe, Togo. The collector was Ernst Baumann, but author F. A. F. Karsch's name seems to have been omitted from the title page.

No specimens appear to have been found yet south of the Limpopo River, but it is common in rocky areas north of that river and possibly occurs in the northern Transvaal and in the Caprivi.

DISTRIBUTION. Prefers rocky outcrops near or at pools and streams. Botswana, Zimbabwe and Mozambique north to E. and W. equatorial Africa.

C. erythraea (Brullé, 1832): 102 (Moravia)

Type apparently lost. Moravia is probably the place of this name in southern Namibia

Some authors, myself included, have believed *erythraea* to be the western (i.e. African) race of the Oriental *servilia* (Drury, 1773), but chromosome karyotypes studied by Kiauta, Yadav and others suggest that the two are distinct (see Yadav, 1979: 77–79).

BC Richards Bay xii.1959

DC *Cape* – Cape Flats

KCB *Swaz* – Road junction N. of Magomba, W. of Siteki 11.xii.1976 (Boyes & Brink)

NMB *Cape* – Series including Lake Mentz 29.x.1978; Namaqualand, Kamies-kroon iii.1963; Witrand farm, Warrenton x.1978 (de Moor)

Nat – Several localities *OFS* – Clocolan 18.i.1966

Swaz – Eranchi 1.i.1955 (Newton) *Tvl* – Several localities

- PU* *Cape* – Batu Malan; Knysna xii.1977 *Nat* – Overton Mission
Tvl – Brits iii.1972, iv, vi.1977; Carolina ii.1963; Cullinan; Germiston
 iii.1971; Groblersdal iv.1976; Hartebeespoort dam; Kaapmuiden
 iv.1979; Malelane; Marnitz; Middleburg ii.1974; Premier Mine, Pre-
 toria; Pretoria i.1973, iv.1976; Pumulani; Rustenburg iii.1974
- SAM* *Cape* – Rietfontein x.1904; Warmberg xii.1903 *OFS* – Waterkloof xii.1906
- SUC* *Cape* – Hermanus i.1925; Stellenbosch iv.1927 (P. van der Spuy)
Nat – Durban iii.1919
- TM* Series from Cape; Natal (incl. Ndumu G. Res. 27.x.1971); and Transvaal.
 Also,
Nam – Otjikango (C. Koch) *OFS* – Vlakkraal dry dam 4.xii.1973
- ZMUL* *Nam* – Sanitatas 5.vi.1951 *Cape* – Villiersdorp 11.ii.1951
Les – Hensleys dam, Leribe 30.ii.1951; Nazareth 26.iii.1951
Tvl – Skukuza, Kruger Nat. Park 1.v.1951 (P. Brinck)

DISTRIBUTION. Abundant at pools or streams and rivers. Probably all parts of South Africa except desert, northwards through most of the continent except desert or heavy forest; some islands and parts of western Asia.

***C. sanguinolenta sanguinolenta* (Burmeister, 1839): 859 (Cape)**

Series in Rambur Collection, *SCIS*, from Cape, type ♂ not designated

- DC* *Cape* – Table Mtn
- HC* *Cape* – van Stadens River
- LM* *Nat* – Albert Falls, Umgeni River 13.v.1951 (P. Brinck)
Tvl – Pienaars River, Roodeplaat 9.i.1958 (A. C. van Bruggen)
NMB Series from Cape, Natal and Transvaal (including Moutain Inn,
 Louis Trichardt)
- PU* *Cape* – Batu Malan, Kalahari; Tosca *Nat* – Overton Mission
Tvl – Brits; Bronkhorstspuit ii.1970; Hazyview; Kaapmuiden; Letsitele
 iii.1970; Malelane; Middleburg iv.1970; Nelspruit; Phalaborwa
 ii.1975; Premier Mine, Pretoria; Pretoria v.1957, xii.1974; Warmbad
 v.1972, v.1975
- SAM* *Nat* – M’Fongosi ii.1911 (W. E. Jones) *Tvl* – Barberton (—)
SCIS Series from Cape in Rambur Collection
- SUC* *Cape* – Stellenbosch iv.1927 (F. Beyers) *Nat* – Amanzimtoti iv.1916 (M.
 S. Adams)
- TM* Series from Cape, Natal and Transvaal (including Groblersdal iii.1974)
- ZMUL* *Nam* – Sanitatas 15.iv.1951
Cape – Assegaibos 1.iii.1951; Hout Bay 13.xii.1950; Kirstenbosch
 29.x.1950; van Stadens Pass 1.iii.1951
Nat – Albert Falls 13.iv.1951; Natal Nat. Park, Tugela 8.iv.1951 (P.
 Brinck)

Meskin found it near Rustenburg, Transvaal, v and xi.1983.

DISTRIBUTION. Widespread at pools or streams but generally less plentiful than *erythraea*. Namibia, Cape, Natal, Transvaal, north to E. & W. equatorial Africa; Madagascar; and a race in the Levante.

Genus *Bradinopyga* Kirby, 1893: 553

Type-species *Bradinopyga stigmata* Kirby (1893; synonym of *geminata* Rambur, 1842, of Asia)

B. cornuta Ris, 1911: 547 (Moçambique)

Holotype ♂, allotype in *MNHN* from Moçambique

♂ form *subcancellata* Martin (1921), holotype ♂ also in *MNHN* from Moçambique, a minor variety.

- NMB* *Nam* – Andowa, Kaokovold 27.v.1970 (H. D. Brown)
Nat – Ramsgate (and Shooters Hill) 20.ix.1979 (Pinhey)
Tvl – Bundu Inn, Groblersdal iv.1973
- PU* *Tvl* – Hyzyview
- SAM* *Tvl* – Kaapmuiden x.1918 (R. E. Tucker)
- ?*SMF* *Nat* – Princetown ii.1909 (see Ris, 1921, no. 547)
- TM* *Tvl* – Barberton iii.1906

Kiauta & van Brink (1977) examined material from Kwaluseni, Swaziland.

DISTRIBUTION. Prefers rocky hill pools, even temporary rain-pools; or quiet streams and pools in rocky areas; but I have known it to breed in a rain-butt in a Tanzanian forest where there were few rocks. Namibia. Natal, Transvaal, north to Kenya, west of Cameroun.

Genus *Brachythemis* Brauer, 1868: 367, 736

Type-species *Libellula contaminata* Fabricius (1793, India)

B. lacustris (Kirby, 1889): 239 (Sudan)

Holotype ♂, allotype in *BMNH* from Wadelai, Sudan 27.i.1887 (Emin Pasha)

- BC* *Cape* – Magalakwin River, Matjiesfontein *Tvl* – near Mapungubwe, Limpopo River
- KCB* *Tvl* – Tshokwane, Kruger Nat. Park 28.xi.1976 (J. M. van Brink)
- NMB* *Nam* – Ferry south of Andara, Caprivi 27.iii.1974 (Pinhey); Lake Liambezi, Caprivi xii.1961 (G. Guy)

DISTRIBUTION. Gregarious at streams, pools or rivers where there is low, fringing vegetation, settling very readily on grasses or other perches, often several of one or both sexes on the same stem or leaf. Namibia, Cape. Transvaal, north to Ethiopia, west to Senegal. The male is sometimes confused with *Trithemis kirbyi ardens*.

B. leucosticta (Burmeister, 1839): 849 (Port Natal, Egypt and Senegambia)

Holotype ♂ in *MLUH*: probably from Durban (Port Natal)

- KCB* *Swaz* – Manzini, Parday Park 23.xi.1976 (J. M. van Brink)
Tvl – Tshokwane, Kruger N. P. 27.xi.1976 (van Brink)
- NMB* *Nat* – Greenhill farm, Ramsgate xi.1979 (Pinhey); Hluhluwe v.1952 (Newton); Richards Bay xi.1970 (Pinhey)
Tvl – Albasini dam, Louis Trichardt xii.1978 (Pinhey); Benoni xi.1979; Doornsloot, Waterberg xii.1979 (de Moor); Huwi PNR, Ellsras xi.1977 (Chimwendo); Klipfontein xii.1979 (Car); Mosdene swamps xii.1976 (de Moor)

- PU** Cape – Batu Malan, Kalahari Nat – Pongola Bush iv.1969
Tvl – Brits v.1969; Cullinan; Hartbeespoort dam iv.1967; Komatipoort iv.1971; Loskop dam iii.1981; Malelane; Mooketsi iv.1970; Mopane iv.1978; Nelspruit iv.1982; Olifantsnek dam 28.iii.1970; Pelindaba iii.1940; Potgietersrus iv.1979; Pretoria iv.1961, iv.1970, xii.1974; Roodeplaat dam iii.1978, iii.1982; Rustenburg 28.iii.1970; Tuinplaas; Vaalwater 9.iv.1978, iii.1980
- SAM** Nam – Otiembora xi.1887 (A. W. Eriksson)
- TM** Nat – Ndumu G. R. 16.iii.1972; Nkuzi 15.ix.1974; and other locs.
Tvl – Pienaars River dam 14.i.1973; and others
- ZMUL** Nat – Hluhluwe 18.iv.1951 *Tvl* – Skukuza, Kruger N. P. 1.v.1951 (P. Brinck)

Allanson, *et al.* (1974) recorded it from Lake Sibaya, Zululand.

DISTRIBUTION. Pools, dams, sluggish streams; often abundant, especially where fringing vegetation is sparse or denuded. Gregarious, flying very low, often settling on bare ground. Individuals may follow the legs of quadrupeds or man. Namibia. N. Cape, Natal to Transvaal, north to E. and W. equatorial Africa. In the banded wings there is a superficial resemblance to the much more elusive, cryptic *Parazyxomma flavicans* (Martin), which has quite a different habitat and flight.

Genus *Sympetrum* Newman, 1833: 511

Type-species *Libellula vulgata* Linnaeus (1758, Europe)

S. fonscolombeii (Selys, 1840): 29, 49, 208 (France, etc.)

Type series not found in *SCIS*

- DC** Cape – Cape Flats
- LM** Cape – Kommetjie 24.x.1950 (P. Brinck); Zeekoevlei, Cape Flats 23.xi.1949 (R. A. M. Geesteranus)
- NMB** Nam – Bellerode farm, Windhoek 16.iii.1975 (de Moor); Saturn farm 13.iii.1975 (F. C. de Moor)
 Cape – Many localities: Blinkwater stream; Blouberg Strand; Brackenfell; Cape Town; Fraserburg; Hogs Back Pass (Amatola Mtns); Hope Town; Kakamas, Orange River; Kamieskroon, Namaqualand iii.1963; Katzenberg Hill, Mamre; Kleinmond; Malmesbury; Montagu; Orange River; Paarde Berg; Sevenweeks Poort; Signal Hill, Cape Town; Somerset East; Strydenburg; Swartberg Pass; Tigerberg; Uniondale; Vaalhartz Weir; Vissers Hoek; Worcester
 Nat – Catkin peak; El Mirador; Kamberg, Nat. Res.; Kambula; Lady-smith; Nqutu (A. H. Newton)
- (**NMB**) *Tvl* – Benoni; de Bruins dam, Soutpansberg i.1979 (Pinhey); Davestown; Honey Dew vlei; Mondeor; Pietersburg; Roodepoort
- PU** Cape – de Aar xii.1969
Tvl – Arnot ii.1974; Cullinan iv.1967; Hartbeespoort dam iii.1969; Pretoria xii.1944; Pumulani; Vaalwater 9.iv.1978
- SAM** Cape – Rietfontein x.1904; Waterval x.1899

- SUC* Cape – Stellenbosch ix, x.1923 (C. K. Brain) *Nat* – Amanzimtoti 3.x.1916 (M. S. Adams)
- TM* Series from Cape, Natal and Transvaal
- ZMUL* Cape – Many localities, from Cape Flats to Tzitzikama forest, Knysna and north to Zwartmodder, S. Kalahari (*Nam*), 80 km N.W. of Upington 20.xi.1950 (Brinck) *TK* – Mt Frere 5.iii.1951
- Les* – Hensleys dam, Leribe 30.iii.1951 *OFS* – Renoster River, N. of Kroonstad 12.x.1950
- Tvl* – Skukuza, Kruger Nat. Park 1.v.1951 (P. Brinck)

DISTRIBUTION. Abundant, especially in the bush, scrub or rather arid localities, at quiet pools or streams. Namibia, Cape, Natal, Transvaal, north across Africa to the Mediterranean, but not in forests; Madagascar; many parts of Europe and Asia.

S. navasi Lacroix, 1921: 578 (Ivory Coast)

- Lectotype ♂ in *MNHN* from Bingerville, Ivory Coast
- NMB* *Nam* – Sesheki, Caprivi–Zambezi River xii.1961 (G. Guy)
Also, in *NMB* from Kazungulu, Zambezi River xii.1982 (Falcon Coll.–*NMB* Exped.), and in the Okavango delta of N.W. Botswana, just south of the Caprivi

DISTRIBUTION. Alert, very local at streams, rivers or around islands in lakes, where there are tall reeds for perching. Namibia. Botswana, Zambezi River, sparsely northwards to Uganda, west to Gambia.

Genus *Philonomon* Förster, 1906: (10, sep.)

Type-species *Philonomon erlangeri* Förster (1906; synonym of *Sympetrum luminans* Karsch, 1893)

P. luminans (Karsch, 1893): 22 (Tongo, Tanganyika and Moçambique)

Holotype ♂ in *ZMHU* from Bismarckburg, Togoland 20.ix–31.x.1931 (R. Büttner) (An earlier generic determination for the specimen by Karsch was, apparently, *Nannophya*, an Oriental genus by Rambur)

= *Philonomon erlangeri* Förster, 1906, lectotype ♂ in *AAM* from Somalia

- NMB* *Nam* – Andara, Caprivi 27.iii.1974 (Pinhey & de Moor) *Tvl* – Zeerust xi.1948

PU *Tvl* – Nelspruit

SUC *Nat* – Amanzimtoti 18.xi.1917 (M. S. Adams)

TM *Nat* – Amanzimtoti xi.1917 (M. S. Adams); Durban xi.1948 (Pinhey); Hudley xii.1948 (Pinhey)

Allanson, *et al.* (1974) found it at Lake Sibaya, Zululand.

Cape Vidal road swamps 4.ii and National Park camp-site swamp, 5.ii.1984 (N. Duke).

DISTRIBUTION. Reedy or grassy pools in warm areas. Namibia. Natal, Transvaal, N. to E. and W. equatorial Africa; and, surprisingly, an insular record only from Assumption Island.

Genus *Trithemis* Brauer, 1868: 176, 366, 735

Type-species *Libellula aurora* Burmeister (1839, Asia)

For revision of all known African species refer Pinhey, 1970a.

T. aconita Liefstinck, 1969: 40 (Katanga)

Holotype ♂ in *TMB* from Mululushi River, Kisamamba, south of Kasenga, Shaba 3.iv.1961. In Pinhey (1951) this species was confused with the similar *basitincta* Ris (1912) of equatorial Africa.

DM *Nat* – Amanzimtoti i.1917

NMB *Nat* – Hudley xii.1948 (Pinhey)

SAM *Nat* – Hudley xi, xii.1948 (Pinhey, as *basitincta* Pinhey, 1951, nec Ris)

TM *Nat* – Hudley xi, xii.1948 (as *basitincta*)

DISTRIBUTION. Alert on trees or bushes over streams or rivers in thick bush or forest. Natal. Zimbabwe and Moçambique, north to E. & W. equatorial Africa.

T. annulata annulata (Palisot de Beauvois, 1807): 69 (Oware, Benin)

Type ♂ from Oware, not found in *SCIS*

BC *Nat* – Lake and swamp Umsingazi xii.1957, xii.1959

LM *Tvl* – Mapungubwe. Limpopo River 2.v.1958

NMB *Nam* – Kautitui, Okavango River, Caprivi 17.iv.1970 (H. D. Brown)

Nat – Ndumu Game Res. ii.1970; Richards Bay xi.1970 (Pinhey)

Tvl – Huwi PNR, Ellisras xii.1977 (R. Chimwendo); Klipfontein xii.1979 (C. Car)

PU *Tvl* – Pumulani

SAM *Cape* – Worcester i.1888 *Tvl* – Kaapmuiden xi.1918 (R. E. Tucker)

SUC *Nat* – Amanzimtoti v.1916 (J. Davidson)

TM *Nat* – Hudley xii.1948 (Pinhey); Kosi Bay vii.1948; Pongola River x.1932

Tvl – Pienaars River Dam 14.xii.1973

I. Meskin reports it (iv.1983) at Wolhuterskop ii, iii.1982; Kiauta & van Brink (1977) examined material from Mkusi Game Reserve, Natal. East London, E. Cape, xii.1983 (Duke & Pinhey).

DISTRIBUTION. Common in bush or open, even semi-arid country, at pools, lakes, streams or rivers. Namibia, Cape, Natal to Transvaal, north to the Mediterranean coast; Arabia; and with other races including *haematina* Rambur, 1842, abundant in Madagascar, Mauritius and Réunion; Syria; Iraq.

T. arteriosa arteriosa (Burmeister, 1839): 850 (Port Natal)

Holotype ♂ in *MLUH* from Durban (Port Natal)

Form *distincta* Rambur, 1842: 85, type ♂ in Rambur Collection, *SCIS*, from Cape, probably not designated. This Cape form is distinguished by nodal wing-markings in the ♀.

DC *Cape* – Cape Flats; Jonkershoek Mtns, Stellenbosch

KCB *Swaz* – Kwaluseni 21.xi.1976 (Boyes); Malkerns 18.xi.1976 (J. M. van Brink); Manzini xii.1976 (van Brink)

Tvl – Tshakwene, Kruger Nat. Park 27.xi.1976 (van Brink)

- LM** *Cape* – van Stadens Pass 25.i.1961 (A. C. van Bruggen)
Tvl – Shewasasaulu farm, 600 m, Sibasa 28.xi.1959 (van Bruggen)
- MLUH** Type from Durban
- NMB** *Nam* – Andara, Caprivi 27.iii.1974 (Pinhey & de Moor); von Bach dam, Okahandja 27.xii.1977; Zaris farm, Zaris Mtns 6.iii.1975 (F. C. de Moor)
Cape – Many localities, including Bot River; Breede River Bridge; Caledon; Paarl Mtns; Uniondale etc. *Nat* – Several locs. including Bothas Nek iii.1966 *Swaz* – Eranchi 1.i.1955 (Newton) *Tvl* – Many localities
- PU** *Cape* – Batu Malan, Kalahari
Tvl – Arnot ii.1974; Botanic. Gdns, Pretoria iv.1961; Brits v.1975, iv.1978; Carolina ii.1973, xii.1975; Die Bron iii.1982; Hazyview iv.1979; Karino 1.ii.1967, v.1976; Letsitele iii.1970; Loskop dam Nat. R. iii.1970; Malelane; Marico xii.1972; Marikana iv.1975; Nelspruit 23.v.1974; Pretoria many dates iv.1961–v.1975; Roodeplaat dam iii.1981; Rustenburg iv.1975; Swartruggens; Tzaneen ii.1981; Vaalwater
- SAM** *Cape* – Blue Cliff, Dunbrody ii.1912; Waterval x.1900 *Nat* – Umhlali i.1913
- SCIS** Type of f. *distincta*
- SUC** *Cape* – Stellenbosch v.1921 *Nat* – Amanzimtoti iii.1917 (M. S. Adams)
- TM** Series from Cape, Natal and Transvaal.
OFS – Genadendal iii.1954; Stroomkraal 30.xii.1973
- ZMUL** *Cape* – near Bredasdorp 30.xii.1950, 3.i.1951; Michells Pass, Ceres 12.ii.1951; van Stadens Pass 1.iii.1951 *Nat* – Hluhluwe Game Res. 18.iv.1951
Tvl – Sabie River, Skukuza Kruger N. P. 30.iv.1951 (P. Brinck)

Allanson, *et al.* (1974) found it at Lake Sibaya, Zululand.

DISTRIBUTION. Abundant in most fresh waters or dams, in light forest, bush, open or arid regions. Widespread from the Cape to the Mediterranean and in off-shore but not the distant islands. Several forms and races.

T. donaldsoni donaldsoni (Calvert, 1899): 235 (Somalia)

Holotype ♂ in *PAS* from Stonybrook, Errer River, Somalia 1894 (A. Donaldson Smith)

BC *Cape* – Magalakwin River, Matjiesfontein

DM *Nat* – Amanzimtoti i.1917

NMB *Tvl* – Albasini dam, Louis Trichardt 11.xii.1978 (Pinhey)

TM *Tvl* – Bundu Inn, Groblersdal 23.iii.1974

Chongweni dam, Durban 24.i.1984 (Pinhey)

DISTRIBUTION. Local at streams with moderate current. Cape, Natal, Transvaal, north to E. and W. equatorial Africa; with subsp. *dejouxi* Pinhey (1978b) from Ethiopia west of the rift to Ivory Coast (Pinhey, 1982a:37).

T. dorsalis (Rambur, 1842): 89 (Cape)

Type ♀ in Rambur Collection, from S.W. Cape, not found in *SCIS*. Variable not only in body or wing markings but also in venation, this was the type-species of

Helothemis Karsch (1890), and Kirby named it *Stoechia distanti* (pars) in 1898 and *Misthotus marshalli* and *M. ambiguus* in 1905. All are synonyms of *Trithemis dorsalis* (Rambur).

- DC** Cape – Jonkershoek, Stellenbosch; Table Mtn
KCB Swaz – Kwaluseni 16.ii.1977 (J. W. Boyes); Usutu forest, above Falls 17.iv.1977 (Boyes)
NMB Cape – Constantia xii.1964; Somerset East x.1978; Sevenweeks Poort iii.1966 (Eccles)
 Tk – Xuka River, Engcobo 26.x.1978
 Nat – Haladu vi.1948, ii.1953 (A. H. Newton); Jagersrust xi.1979; Kambula iii.1950 (Newton); Laysmith vi.1953 (Newton); Little Switzerland ii.1980; Nqutu i.1949, xi.1960 (Newton) Tvl – Benoni xi.1979; Roodepoort xi.1979 (Empey)
PU Tvl – Brits iii.1975, iii.1977; Hartebeespoort dam iv.1967; Middleburg iv.1970; Olifantsnek dam 28.iii.1970; Pretoria x.1934, iii.1967; Tzaneen
SAM (partly as *distanti*) Cape – Dunbrody ii.1912; Waterval xi.1899, xii.1900
 Nat – M'Fongosi ii, iii, x.1911 (W. E. Jones)
SCIS Type of *dorsalis*, as above
SUC Cape – Stellenbosch iv.1927 (F. Beyers)
TM Series from Cape (incl. Elliot iii.1954); Natal and Transvaal
 OFS – Renoster Spruit, Bloemfontein 20.xi.1971; Stroomkraal 30.xii.1973
USNM Cape – Cape of Good Hope Nat. P. Res. 7.iii.1968 (P. J. Spangler)
 Nat – Drakensberg Gdns 22.iii.1968 (Spangler)
SMUL Cape – Bredasdorp 30.xii.1950; Hout Bay 13.xii.1950 TK – Mt Frère 5.iii.1951
 Nat – Natal N.P. and Tugela Valley 6, 7.iv.1951 (all P. Brinck)

DISTRIBUTION. Widespread and common at pools and streams, particularly in South and East Africa. Cape, Natal, Transvaal, north to Kenya, Angola and Shaba (Zaire).

T. furva Karsch, 1899: 370 (Tanganyika coast)

Holotype ♂ in *ZMHU* from Malchrito Bay, Issango forest, Tanzania (leg. Stuhlmann) = *risi* Longfield, 1936: 490, 494 (East Africa, Zaire, etc), holotype ♂, allotype in *BMNH* from British East Africa (Kenya) 31.iii.1911 (S. A. Neave); = *Distanti* Kirby (pars, vide *dorsalis*)

- DC** Cape – Jonkershoek, Stellenbosch
HC Cape – Brak River; Witteklip
KCB Swaz – above falls, Usutu forest 10, 17.iv.1977 (J. W. Boyes)
NMB Cape – Clanwilliam iv.1968; Clare Estate v.1959; Kuruman 9.xii.1973; and other localities Les – Caledon River, Maseru 21.iii.1963 (D. H. Eccles)
 Also many localities in Natal and Transvaal
PU Cape – Cambria Nat – Overton Mission; Sordwana i.1973 OFS – Bothaville
 Tvl – Arnot ii.1974; Blyde Poort v.1972; Hartebeespoort dam iii.1948, i.1977; Kaapmuiden iii.1979; Magaliesburg 13.v.1979; Marico River

- xii.1972, i.1973; Middleburg; Nelspruit v.1974; Pretoria xii.1974; Rustenburg iii.1974
- SAM* *Nat* – M’Fongosi v.1934 (Jones) *Tvl* – Potchefstroom 1879 (T. Ayres)
- SUC* *Cape* – Swellendam 23.i.1924 (J. Joubert) *Nat* – Nqutu 5.xi.1960 (Newton); Pietermaritzburg 6.vii.1916
- TM* Series (as *risi*) from Cape, Natal and Transvaal. Also, *OFS* – Genadendal 2.iii.1954; Kalkfontein dam 19.xii.1973; Modder River 25.xi.1973; Stroomkraal 30.xii.1973
- USNM* *Cape* – Hermanus 5.iii.1968 (P. J. Spangler)
- ZMUL* (as *risi*) *Cape* – Several localities between Ceres and Cape Peninsula
Nat – Albert Falls; Hluhluwe; Natal N. P., Tugela (all P. Brinck)
 I. Meskin reports it (iv.1983) at Wolhuterskop 25.ii.1982.
- DISTRIBUTION. Common at pools, streams or large rivers, but south of the Limpopo it is perhaps less abundant than *dorsalis*, whereas north of the river it becomes far commoner. In Ethiopia it overlaps with a close relative *T. ellenbecki* Förster, an Ethiopian endemic. *T. furva* is found in Cape, Natal to Transvaal, north to E. and W. equatorial Africa.

T. hecate Ris, 1912: 787 (Madagascar)

- Lectotype ♂ in *NMHN* from Madagascar = *aureola* Ris, 1912: 788, Madagascar, ♂ in *SCIS* not designated
- NMB* *Nam* – Lake Kiambezi, Caprivi xii.1961 (G. Guy)
Tvl – Huwi PNR, Ellisras 4.xii.1977 (R. Chimwendo); Klipfontein 6.xii.1979 (C. Car)
- In Zululand: Nkazama stream, Cape Vidal road, St Lucia, 31.i & 4.ii.1984 (N. Duke & Pinhey).
- DISTRIBUTION. Pools or streams, but prefers bush-fringed swamp, like the Okavango delta of N.W. Botswana, where it is abundant. Namibia. Natal, Transvaal, north to Tanzania and Zaire; and Madagascar.

T. kirbyi ardens Gerstaecker, 1891: 187 (5, 9, sep.) (Tanganyika)

- Lectotype ♂ (and perhaps allotype?) in *HM* from Mbusini, Tanzania (leg. Stuhlmann)
- T. kirbyi* Selys, 1891: 465 (India) syntype ♂ and ♀ in *SCIS*, not designated.
 Both were described the same year. The female *ardens* varies much and in West Africa it is an andronymous form *aurantiaca* Pinhey (1970a: 78)
- HC* *Cape* – van Stadens River; Witteklip
- KCB* *Tvl* – Mem. Tabl., Kruger Nat. Park 27.xi.1976 (J. M. van Brink)
- NMB* *Nam* – Zaris farm, Zaris Mtns iii.1975 (de Moor)
Cape – Kakamas; Kuruman and other localities
Nat – Umhlatuzi River, Empangeni 1948 (Pinhey), and other localities
OFS – Rayton, Bloemfontein 11.xi.1973 (O. Bourquin) *Tvl* – Several places
- PU* *Nam* – Gobabis iv.1976, i.1981; Katima Mulilo; Otavifontein, near Tsu-meb; Windhoek xii.1974
Cape – Batu Malan, Kalahari *Swaz* – Endhalazana

- Tvl* – Brits 20.iv.1978; Britten; Cullinan iv.1967; Hazyview; Magaliesburg xi.1969; Marikana ii.1975; Pretoria iii.1971, v.1975; Rustenburg iv.1968; Sordwana i.1973; Tom Burke; Tzaneen v.1975
- SAM** *Cape* – Waterval iv.1900 *Nat* – Durban iii.1889 (J. H. Bowker); M'Fongosi x.1917 (W. E. Jones)
- SUC** *Nat* – Amanzimtoti iv.1916 (M. S. Adams) *Tvl* – Pretoria vii.1921 (C. K. Brain)
- TM** Series from Cape, Natal and Transvaal.
OFS – Rayton, Bloemfontein 11.xi.1975; Stroomkraal 30.xii.1973
- ZMUL** *Nam* – Sanitatas 16.vi.1951 (P. Brinck)
I. Meskin reported it (iv.1983) from Wolhuterskop ii, iii.1982
- DISTRIBUTION.** Pools or streams, especially in rocky or sandy, even arid regions. Subsp. *ardens*: Namibia, Cape, Natal, Transvaal, north to E. and W. equatorial Africa; Madagascar and Comoro Islands; Arabia, with intermediates to the Oriental race *kirbyi*.

T. monardi monardi Ris, 1931: 108 (Angola)

Holotype ♂, allotype in *MCFS* from Chimporo, Sangévé, Angola xi.1928, ii.1933 (Albert Monard)

HM *Nam* – Okosongomingo (Thomson)

DISTRIBUTION. Locally common in or near pools having copious grasses or rushes. Namibia. Angola and Botswana; with subsp. *insuffusa* Pinhey (1970a) in Zimbabwe and Zambia; a more tropical race *imitata* Pinhey (1961) in East and West equatorial Africa, which may also be regarded as a distinct species, differing not only in markings but in behaviour.

T. pluvialis Förster, 1906b: (30. sep.) (Tanganyika)

Holotype ♂ in *AAM* from Nguelo, East Usambara Mtns; allotype in *BMNH* from Chirinda forest, Mashonaland

A melanic ♂ from Zambia has been named ab. *melanistica* Pinhey (1970a: 75)

BC *Nat* – Nyalazi River xii.1957 *Tvl* – Eastern Transvaal 1958

DM *Nat* – Mtunzini, Zululand, iv.1964 (M. Woods & W. Lawson)

KCB *OFS* – William Pretorius Game Park 20, 21.iv.1974 (J. W. Boyes)

NMB *Tvl* – Bundu Inn, Groblersdale 20.iv.1973 (Pinhey)

TM *Nat* – Hudley xii.1948 (Pinhey) *Tvl* – Pretoria viii.1948 (Pinhey)

USNM *Tvl* – Pretoriuskop 20.ii.1968 (Spangler & Krombein); Tzaneen, Morenski dam 18.ii.1968 (Spangler & Krombein)

DISTRIBUTION. Forest, woodland or thick bush: in fact, more of a forest lover than most *Trithemis* in southern Africa, more like some tropical members of the genus. Natal, Transvaal, north to Kenya, west to Ghana. Fraser's Madagascar record (1949: 18, 36) is, I think, unlikely.

T. stictica (Burmeister, 1839): 850 (Natal)

Holotype ♂ said to be in *MLUH* (Drège Collection) from Natal; and St Quentin (1970: 273) records a metatype ♂ in *MW*.

HC *Cape* – Brak River: van Stadens Pass

- KCB** Cape – van Stadens Pass 19.ii.1960, 25.i.1961, 27.ii.1961 (A. C. van Bruggen)
- MLUH** Holotype, as above
- MW** Metatype, as above
- NMB** Nam – Andara, Caprivi 27.iii.1974 (Pinhey & de Moor)
Cape – Franschoek Pass xi.1977 (N. Duke); Greyton, Caledon i.1969; W. of Humansdorp xi.1978; Vyge Kraal, Plettenberg Bay ii.1969
Nat – Nkandhla i.1949 (A. H. Newton); Nqutu xii.1957, i.1961 (Newton)
OFS – Clocolan 18.i.1966
Tvl – Hanglip, Waterberg xii.1976; Huwi PNR, Ellisras xi.1977 (Chimwendo); Klipfontein xii.1979 (C. Car); Mosdene swamps xii.1976 (de Moor); Outlook Est., Soutpansberg xii.1978 (Pinhey & Mhlanga)
- PU** Tvl – Castle Gorge; Middleburg iv.1970; Pretoria i.1973
- RSM** Tvl – Wolhuterskop xii.1908 (M. Fountaine)
- SAM** Tvl – Kranspoort xii.1906; White River xii.1909 (A. T. Cooke)
- SMF** OFS – Botchabelo 1914 (H. Junod)
- SUC** Nat – Amanzimtoti 28.xi.1917 (M. S. Adams)
Tvl – Rustenburg xii.1908
- TM** Cape – Baakens River xii.1940; Uitenhage xii.1910
Nat – Hudley xi, xii.1948 (Pinhey); Princeton 1908–1909
Tvl – Botchabelo 1914 (Junod); Craggs ii.1941; Kranspoort xii.1906; Moor-drift x.1907; Rustenburg xii.1908, x.1948; Sandfontein 22.i.1911; White River 1909–1910; Wolhuterskop xii.1908 (M. Fountaine)
- ZMUL** Cape – Bainskloof 12.ii.1951; Langeberg, Tradouw Pass 4.i.1951; Tzitzikama forest 14.i.1951 (P. Brinck)
Maden dam, Kingwilliamstown, 20.xii.1983 (Duke & Pinhey)
DISTRIBUTION. Pools, streams or rivers, swamps, often abundant. Namibia, Cape, Natal, Transvaal, north to E. and W. equatorial Africa; Madagascar.

T. wernerii Ris, 1912: 765 (Sudan, 2 ♂)

Holotype ♂ in *MW* from Gondokoro, Southern Sudan (leg. F. Werner)

BC Tvl – Messina, Limpopo River 1958; Pafuri, Kruger N. P. 1965

DISTRIBUTION. Local in broad, semi-arid river valleys, settling on bushes and twigs often at some distance from the water. Transvaal, north to Sudan, west to Angola coast.

Genus *Zygonyx* Hagen, 1867: 62

Type-species *Zygonyx ida* Selys (1869, Indonesia)

Note that Selys himself (1869) pronounced *ida* to be the type-species, so that Kirby's later selection (1890) of *iris* Selys as type-species was incorrect. I am indebted to Liefertinck (1969:55) for confirming my use of *ida* (Pinhey, 1962: 274).

Z. natalensis natalensis (Martin, 1900): 106, 107 (Natal)

Holotype ♀ in *MNHN* from Natal, in Martin collection.

- DM** Nat – Umbilo river, Durban 1912
MNHN Holotype, as above
NMB Nat – Ladysmith 15.xii.1951 (Newton); Nsuzi Valley 12.iv.1951 (Newton)
 Tvl – Entabeni Forest Res., Louis Trichardt 10.xii.1978 (Mhlanga); Outlook Est., Soutpansberg 9.xii.1978 (Pinhey)
SAM Nat – M'Fongosi v.1911 (W. E. Jones)
SMF Nat – M'Fongosi iii.1900; Hilton road xii.1909
ZMUL Nat – Albert Falls 13.iv.1951 (P. Brinck)

DISTRIBUTION. Waterfalls or rapids, where they breed. In early 1950s they were in huge numbers at the twin falls at Thika, Kenya. Natal, Transvaal, north to E. and W. equatorial Africa. *Z. elisabethae* Liefstinck may be a Madagascar race of *natalensis* (teste Liefstinck, 1963: 57 in description).

Z. torrida torrida (Kirby, 1889): 299, 340 (Sierra Leone, Teneriffe, etc.)

- Lectotype ♂, allotype in *BMNH* from Sierra Leone
NMB Nam – Andara, Caprivi 27.ii.1974 (Pinhey); Zaris farm, Zaris Mtns 6.iii.1975 (de Moor)
 Tvl – Albasini dam, Louis Trichardt 11.xii.1978 (Pinhey); Bundu Inn, Groblersdale 21.iv.1973
PU Swaz – 'Swaziland' Tvl – Warmbad v.1975
RSM Tvl – Soutpansberg
SAM Cape – Ceres I(–) (R. Trimen) Nat – M'Fongosi xii.1911 (W. E. Jones)
TM Nat – Hudley xii.1948 (Pinhey) Tvl – Elandshoek xi.1947

Harrison (1964) records Hottentot Holland Mtns and Groot Drakenstein.

DISTRIBUTION. Near waterfalls and rapids, like *natalensis*, but rarely in any numbers. Namibia, Cape, Natal, Transvaal, north to Mediterranean Africa; Canary and Comoro Islands; Mauritius, as subsp. *insulana* Pinhey; and an Oriental race *isis* Fraser, from Coorg (India).

Genus *Olpogasta* Karsch, 1895: 201

Type-species *Olpogastra lugubris* Karsch (1895)

O. fuelleborni Grünberg, 1902: 235 (♂ Nubia, Sudan, ♀ Langenburg)

Holotype ♀ in *ZMHU* from Langenburg, Nyassa Province, Moçambique, on southern border of Tanzania

- BC** Cape – Magalakwin River, Matjiesfontein
 Also, Matokota, Limpopo river, Botswana
NMB Nam – Lake Liambezi, Caprivi xii.1961 (G. Guy)
SAM Nat – M'Fongosi ii, iii.1911 (W. E. Jones)
 Tvl – Kaapmuiden xi.1918 (R. E. Tucker); White River

DISTRIBUTION. Prefers settling on branches or twigs of trees and bushes lining rivers or large streams. Namibia, Cape, Natal, Transvaal, north to Sudan, west to Angola, Zaire and Nigeria. The westerly localities were assigned to subsp. *occidentis* Ris (1912), but there seems little difference on average and I think it is only a form.

O. lugubris Karsch, 1895: 199, 201 (Sudan)

Holotype ♀ in *MNHN* from Dongola, Sudan; allotype in *NRS* from Mombo, Usambara Mtns, Tanzania

BC *Tvl* – Kruger N. P. 1958, 1965; Pafuri–Limpopo River confluence 1955

NMB *Nam* – Andara, Caprivi 27.iii.1974 (Pinhey & de Moor)

PU *Nam* – Katima Mulilo, Caprivi

SAM *Nam* – Ovamboland xii.1887 (A. W. Eriksson)

DISTRIBUTION. By contrast to *fuelleborni*, the generally commoner *lugubris* likes tall reeds at margins of streams, rivers, lakes or even small pools. Namibia. Transvaal, north to E. and W. equatorial Africa.

Genus *Rhyothemis* Hagen, 1867: 232

Type-species *Libellula phyllis* Sulzer (1776, Asia)

R. mariposa Ris, 1913: 961 (South-west Africa)

Holotype ♂ in *SAM* from Otiembora, South-west Africa (Namibia) xi, xii.1887 (Axel W. Eriksson)

SAM Holotype, as above

DISTRIBUTION. Restricted in range, and very local at swamps and reedy pools. North Namibia, Zambia, East Angola and Shaba (Zaire).

R. notata fenestrina, (Rambur, 1842): 40 (♀, sine patria)

♀ said to be in Rambur Collection, *SCIS* without locality

Pinhey (1971: 15 and 1979: 13) indicated that wing markings of western *notata* and Central African *fenestrina* intergrade and that they are conspecific, even showing occasional overlap in pattern.

SAM *Nam* – Otiembora, northern Ovamboland xi, xii.1887 (A. W. Eriksson Exped.)

DISTRIBUTION. An exceptionally gregarious forest species, with such a slow, fluttering flight that a sweep of the net can capture many at a time. Rarely seen singly. Namibia. Botswana, Zambezi River, Zambia, Malawi, Angola, Shaba (Zaire), west to Senegal.

R. semihyalina semihyalina (Desjardins, 1832): 1, and 1835: IV (Mauritius)

Type series from Mauritius, not found in *SCIS*

Mauritian specimens have constant and distinctive wing markings, but the subordinate name *separata* Selys, whilst a satisfactory subspecific name for mainland Africa, overlaps somewhat in Madagascar with Mauritian patterns. Unless detailed study of Madagascar material could show a dividing line, geographically or ecologically, true racial separation is not valid for these populations although it applies in Syria and Israel (see below).

BC *Nat* – Lake Umsingazi, Richards Bay xii.1957, xii.1959

NMB *Nat* – Greenhill farm, Ramsgate 20.xi.1979 (Pinhey); St Lucia Bay 3.ii.1980 (Londt); Umdoni Park 21.xi.1979 (Pinhey)

- Tvl* – Huwi PNR, Ellisras 7.xii.1977 (Chimwendo); Klipfontein 3.xii.1979 (C. Car); Mosdene swamps 4.xii.1976 (de Moor)
- PU* *Tvl* – Pretoria
- SAM* *Nat* – Port Shepstone; St Lucia Bay x.1919 (Bell–Marley) *Tvl* – Boksburg (—)
- TM* *Nat* – Hluhluwe x.1947; Hudley xi.1948 (Pinhey); Isipingo Beach xii.1941; Richards Bay xii.1925; Umhlakuzi River xii.1925
- Allanson, *et al.* (1974) record it from Lake Sibaya, Zululand. East London, xii.1983 (Duke & Pinhey)

DISTRIBUTION. Widespread and seldom gregarious like the previous two *Rhyothemis*, often solitary at reedy pools, streams or large quiet stretches of rivers. Eastern Cape, Natal, Transvaal, north to E. and W. equatorial Africa: Algeria; Socotra, Seychelles, Assumption, Madagascar, Mauritius (typical); a race in Israel. *R. syriaca* Selys is now considered a separate species.

Genus *Zyxomma* Rambur, 1842: 26, 30

Type-species *Zyxomma petiolatum* Rambur (1842; Chagos Islands and Seychelles; Asia)

Z. atlanticum Selys, 1889: 449 (West Africa)

- Type said to be in *SCIS* from West Africa, not designated
- BC* *Nat* – Barringtonia forest, Umsingazi swamp, Richards Bay (at dusk) xii.1957 (Balinsky)
- NMB* *Nat* – Umsingazi swamp, Richards Bay 1.i.1958 (B. I. Balinsky)

DISTRIBUTION. Normally a crepuscular forest species of tropical Africa. Natal, Zaire, Uganda, westwards to Senegal.

Genus *Parazyxomma* Pinhey, 1961: 176

Type-species *Zyxomma flavicans* Martin (1908)

P. flavicans (Martin, 1908): 657 (Guinea)

- Holotype ♂ in *GM* from Guinea Bissau
- BC* *Nat* – Richards Bay xii.1957, xii.1959
- DM* *Nat* – Lake Nhlabane, Richards Bay, at light-trap, xii.1979 (S. African Sugar Assocn.)

DISTRIBUTION. An alert woodland or forest species, or in isolated clumps of trees in swamp; superficially resembling banded-winged *Brachythemis leucosticta* (Burm.), but settling on sunlit branches or foliage amongst the trees. Natal. Botswana (Okavango swamps), Zambezi Valley, north to Uganda, west to Senegal.

Genus *Tholymis* Hagen, 1867: 221

Type-species *Libellula tillarga* Fabricius (1798)

T. tillarga (Fabricius, 1798): 285 (East Indies)

Lectotype ♂ (Pinhey, design.) in *CM* from East Indies (Indonesia), in Kiel Collection. It has no abdomen.

- DM* *Nat* – Manville i.1915
NMB *Nam* – Andara, Caprivi 27.iii.1974 (Pinhey)
 Tvl – Huwi PNR, Ellisras xii.1977 (R. Chimwendo); Mosdene swamps
 xii.1976 (de Moor)
PU *Tvl* – Pretoria iv.1970
 Found by day and at dusk, St Lucia, ii.1984 (N. Duke & Pinhey).
 DISTRIBUTION. Normally crepuscular but will fly on hot stormy days, the male
 fast and erratically. Perhaps migratory. Namibia. Natal, Transvaal, north to E. and W.
 equatorial Africa; Seychelles, Madagascar, Mauritius, Réunion; Asia, Australasia.

Genus *Pantala* Hagen, 1861:141Type-species *Libellula flavescens* Fabricius (1798)***Pantala flavescens*** (Fabricius, 1798): 285 (India)Lectotype ♀ (Pinhey design.) in *CM* from India, in Kiel Collection. In poor
condition

- KCB* *Swaz* – Kwaluseni 29.iii.1976, i.1977 (Boyes); Manzini xii.1976 (Boyes)
NMB *Nam* – Zaris farm, Zaris Mtns iii.1975 (F. C. de Moor)
 TK – Cacadu River, Lady Frère x.1978 *Nat* – Several localities
 Swaz – Eranchi xii.1953 (Newton) *Tvl* – Doornsloot; Sannieshof; and
 other locs.
PU *Nam* – Sissekab *Cape* – Batu Malan, Kalahari; Vyeboom
 Tvl – Malelane; Viljoenskroon; Volksrust; Wonderfontein
SUC *Nat* – Amanzimtoti (M. S. Adams)
TM Series from many areas. Also, *OFS* – Rayton, Bloemfontein 28.x.1973
ZMUL *Cape* – Cradock; Graaff Reinet; Tzitzikama forest
 Allanson, *et al.* (1974) record it from Lake Sibaya, Zululand.

DISTRIBUTION. Common in nearly all parts of Africa, roving far and wide, re-
 corded at times on migration; frequently observed flying erratically before an advan-
 cing storm, apparently anticipating precipitation: even temporary pools will attract
 egg-laying females. Distributed through Africa and most of the surrounding islands;
 Mediterranean Europe; warmer parts of Asia, Americas and Australasia.

Genus *Tramea* Hagen, 1861: 114, 143Type-species *Libellula carolina* Linnaeus (1763, North America)

Although the name *Trapezostigma* Hagen, 1849, predates *Tramea* it was not
 clearly defined and is regarded as a *nomen nudum*.

T. basilaris (Palisot de Beauvois, 1817): 171 (Calabar, southern Nigeria)

Type apparently lost

Tramea burmeisteri Kirby (1889: 316, India), lectotype ♂, allotype, 5 para-
 lectotypes in *BMNH*: This was regarded by Fraser (1933) as the Oriental race of the

African *basilaris*. Examples of *burmeisteri*, however, appear to form one of the common variants in Afrotropical Africa and since they are often migratory it is probable that it is not a subspecies but only a variety (as in Pinhey, 1951).

- BC* Nat – Richards Bay xii.1957, 21.xii.1959 (massed flight, Balinsky, 1961)
KCB Tvl – Memorial Tabl., Kruger N.P. 27.xi.1976 (J. M. van Brink)
NMB Nat – Nqutu 10.xi.1948 (Newton) Tvl – Mosdene swamps 8.xii.1976 (F. C. de Moor)
PU Nam – Grootfontein xii.1975 OFS – Trompsburg xii.1977
 Tvl – Soutpan, Pretoria Distr. 4.iv.1944; Volksrust ix.1975
TM Nam – Abachaus i.1942 (G. Hobohm)
 Nat – Hudley xi, xii.1948 (Pinhey); Nyalazi River iii.1926
 Tvl – Pretoria iv.1943

Allanson, *et al.* (1974) reported it from Lake Sibaya, Zululand.

DISTRIBUTION. Flies over pools, lakes, rivers or swamps; sometimes on migration. Namibia. Natal to Transvaal, north to E. and W. equatorial Africa; Socotra; Seychelles, Aldabra, Assumption, Mauritius and Madagascar; parts of Asia.

T. continentalis Selys, 1878: 299 (Senegal)

Type ♂ from Dakar, Senegal not found in *SCIS*.

Pinhey (1976a: 596) separated *continentalis* from *T. limbata* (Desjardins, 1832), a Mauritian endemic, on wing features and on behaviour.

- DC* Cape – Ceres 8.i.1978 (J. Davey): the furthest south that it has been recorded. Davey reported it to be common on a lake and a sluggish canalized stream in the vicinity; also observed it near the estuary of a river at George during the same period. I have examined examples from Ceres.
NMB A label reading “St Joan”, S. Africa is probably a misreading of St John (Mission) –
 Nat – St John Mission (?) xi.1958, near Port Shepstone
TM Nat – Hudley xi, xii.1948 (Pinhey); Kosi Bay vii.1948; Nyalazi River xi.1926

Balinsky (1961) observed it at Richards Bay, Zululand in Dec. 1957 and 1959; and Allanson *et al.* (1974) found it at Lake Sibaya. Davey's Ceres and George records may signify a southerly migration. St Lucia estuary, late Jan., early Feb., 1984 (N. Duke & Pinhey).

Meskin reared a series from a pool at Kroondal, Rustenburg, xi.1983. Females unusually variable in ferruginous basal marking, in one specimen reduced to a point at extreme base of hindwing.

DISTRIBUTION. Normally coastal, over pools, lakes, estuaries, but sometimes found far inland, for instance, to Botswana. I suspect it flies up the broad river valleys. S.W. Cape. Natal. Botswana and Moçambique, north to Somalia; Nigeria to Senegal; Socotra, Seychelles, Chagos, Assumption, Madagascar and Annobon island (Guinea Gulf).

Genus *Urothemis* Brauer, 1868: 175, 366, 737

Type-species *Urothemis bisignata* Brauer (1868, Philippines)

U. assignata (Selys, 1872): 176 (Madagascar)

Type ♂ from Madagascar not found in *SCIS*

- BC* *Nat* – Richards Bay xii.1957
NMB *Nat* – Empangeni iii.1950 (A. H. Newton); St Lucia ii.1980; Umdoni Park xii.1979 (Pinhey)
Tvl – Huwi PNR, Ellisras xii.1977 (R. Chimwendo)
PU *Tvl* – Marico River iii.1973
TM *Nat* – Durban xii.1948 (Pinhey); Hudley xi, xii.1948 (Pinhey); Nyalazi River, St Lucia ii.1936; Richards Bay xii.1925
 A. Duke found first Cape record at Buffalo River, East London, 1983.
 DISTRIBUTION. Prefers stagnant, reedy or grassy pools to running water.
 E. Cape, Natal, Transvaal, north to Somalia, west to Senegal; Madagascar.

U. edwardsi edwardsi (Selys, in Lucas, 1849): 124 (Algeria)

Type ♀ in *SCIS* from Lake Houbeira, Algeria, not found in *SCIS*

- BC* *Nat* – Richards and St Lucia Bays xii.1957, xii.1959
NMB *Nam* – Andara Mission, Caprivi 27.iii.1974 (Pinhey & de Moor); Lake Liambezi xii.1961 (G. Gray)
Tvl – Huwi PNR, Ellisras 3.xii.1977 (Chimwendo); Klipfontein 3.xii.1979 (C. Car); Mosdene swamps 4.xii.1976 (F. C. de Moor)
TM *Nat* – Hudley xi, xii.1948 (Pinhey); Richards Bay xii.1925
 Allanson, et al. (1974) found it at Lake Sibaya, Zululand; Pietermaritzburg, Natal 14.ii.1984 (Pinhey).
 DISTRIBUTION. Swamps, streams or large rivers. Especially abundant in the Okavango delta of N.W. Botswana. Very persistent in perch selection. Namibia. Natal, Transvaal, north to Somalia, west to Senegal; North Africa; and a race described from northern Israel.

U. luciana Balinsky, 1961: 86 (Zululand)

- Holotype ♂, allotype in *TM* from western shore of St Lucia Bay, Zululand 2.xii.1957, 24.xii.1959 (B. I. Balinsky)
BC Paratypes of both sexes from St Lucia
BMNH Paratype of each sex
DM *Nat* – Smallest ♂ (headless; hindw. 38 mm), Maputa, 50 km west of Kosi Bay, Tongaland, 8.xi.1945
NMB Paratype of each sex, St Lucia Bay 30.xii.1959 (Balinsky)
TM Types, as above

DISTRIBUTION. According to Balinsky they fly high in the bush, rarely settling and their behaviour is quite different to other *Urothemis*. A Zululand endemic.

Genus *Aethriamanta* Kirby, 1889: 262, 283

Type-species *Libellula brevipennis* Rambur (1842, Asia)

A. rezia Kirby, 1889: 298 (Madagascar)

Holotype ♂ in *BMNH* from Madagascar –

DM Nat – ♂ Umbilo River, Durban 8.xii.1913 (A. L. Bevis); ♂ Maputa, 50 km W. of Kosi Bay, 8.xi.1945.
St Lucia, National Parks camp-site, 1 ♂ collected on a tree, 3.ii.1984 (N. Duke)

DISTRIBUTION. Reedy pools in warm areas. Alert. Natal. Botswana, Zimbabwe, Moçambique north to Kenya, west to Senegal; Madagascar.

Genus *Macrodiplax* Brauer, 1868: 366, 737

Type-species *Diplax cora* Brauer (1867)

M. cora (Brauer, 1867): 20, 289 (♀ S.E. Asia)

Holotype ♀ in *MW* from Ceram, S.E. Asia; cotype ♂ in *SCIS* from Asia

BC Nat – Kosi Bay, northern Zululand coast (B. I. Balinsky)

DISTRIBUTION. Balinsky, in corresp. with Pinhey, believed that *cora* was resident at Kosi Bay, possibly breeding in the region of the estuary. On Mauritius it seems to like flying over exposed stretches of beach. Possibly a migrant here because of its disconnected distribution, as at present known: Zululand; Somalia; Socotra island; Mauritius; Asia and Australasia.

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dicksoni , Par.	5	Ictinogomphus	1
Diplacodes	26	Ictinus	1
distanti , Trith.	34	ida , Zyg.	37
distincta , Trith.	32	immitata , Trith.	36
divisa , Croc.	27	imperator , Anax	10
donaldsoni , Trith.	33	inflata , Acis.	26
dorsalis , Anax	10	insuffusa , Trith.	36
dorsalis , Trith.	33	insulana , Zyg.	38
edwardsi , Uroth.	43	iris , Zyg.	37
elisabethae , Zyg.	38	irregularis , Tetr.	15
ellenbecki , Trith.	35	jaspidea , Anac.	9
elliotti , Aeshna	7	jonesi , Not.	16
elpidius , Par.	5	jucunda , Palp.	23
ephippiger , Hem.	9	julia , Orth.	19
Epophthalmia	13	kirbyi , Trith.	35
erlangeri , Phil.	31	kochi , Macr.	15
erythraea , Croc.	27	lacustris , Brach.	29
falsum , Orth.	19	lefebvrei , Dipl.	26
farinosa , Nes.	22	Lestinogomphus	2
fenestrina , Rhy.	39	leucosticta , Brach.	29
ferox , Ict.	1	limbata , Tram.	42
flavescens , Pant.	41	lucia , Palp.	24
flavifrons , Chalc.	25	luciana , Uroth.	43
flavicans , Paraz.	40	lugubris , Olp.	39
flavicinta , Macr.	14	luminans , Phil.	31
fonscolombeii , Symp.	30	machadoi , Orth.	21
forcipata , Onych.	7	Macromia	14
fritillarius , Par.	7	Macrodiplax	44
fuelleborni , Olp.	38	malgassicum , Orth.	17
furva , Trith.	34	manderica , Gyn.	12
fuscifrons , Neur.	3	mariposa , Rhy.	39
geminata , Brad.	29	marshalli , Trith.	34
genei , Par.	6	mauricianus , Anax	10
georgius , Anax	10	melanistica , Trith.	36
Gomphidia	2	minuscula , Aeshna	8
gracilis , Sync.	13	Misthotus	34
grandis , Aeshna	7	monardi , Trith.	36
guineense , Orth.	18	monoceros , Macr.	14

Nannophya	31	sabicus , Par.	6
natalensis , Zyg.	37	sanguinolenta , Croc.	28
navasi , Symp.	31	semihyalina , Rhy.	39
nervosa , Gyn.	12	separata , Rhy.	39
Nesciothemis	22	servilia , Croc.	27
Neurogomphus	3	sophia , Macr.	15
nguelicus , Par.	5	speratus , Anax	11
notata , Rhy.	39	spinifera , Chalc.	25
Notiothemis	16	stemmale , Orth.	20
Notogomphus	2	stictica , Trith.	36
nyanzana , Macr.	14	stigmata , Brad.	29
occidentis , Olp.	38	Stoechia	34
Olpogastra	38	subcancellata , Brad.	29
Onychogomphus	7	subpupillata , Aeshna	9
Orthetrum	16	supinus , Onych.	7
Palpopleura	23	Sympetrum	30
panorpoides , Acis.	26	Syncordulia	13
Pantala	41	tetra , Dipl.	26
Paragomphus	5	Tetrathemis	15
Parazyxomma	40	thetis , Macr.	14
petiolatum , Zyx.	40	Tholymis	40
Philonomon	31	tillarga , Thol.	40
phyllis , Rhy.	39	t-nigrum , Gomph.	2
Phyllogomphus	3	toddii , Orth.	18
picta , Macr.	14	torrida , Zyg.	38
pictus , Cerat.	4	Tramea	41
piscator , Pres.	13	Trapezostigma	41
pluvialis , Trith.	36	triangulifera , Anac.	9
polleni , Tetr.	15	triceraticus , Cerat.	4
portia , Palp.	24	trinacria , Orth.	21
praetorius , Not.	2	tristis , Anax	11
Presba	13	Trithemis	32
pugnax , Ict.	1	tropicalis , Macr.	14
quarrei , Gom.	2	Urothemis	43
radiata , Palp.	24	usambarica , Aeshna	7
reginae , Macr.	14	venator , Sync.	13
rezia , Aethr.	44	vestita , Palp.	23
rhodesiae , Orth.	21	vicinus , Neur.	3
Rhyothemis	39	villosa , Gyn.	12
rileyi , Aeshna	8	vulgata , Symp.	30
risi , Trith.	34	wernerii , Trith.	37
robustum , Orth.	21	zernyi , Orth.	19
rubens , Orth.	21	zuluensis , Gyn.	12
rueppeli , Not.	2	Zygonyx	37
rusticatus , Par.	6	Zyxomma	40