

6. *Dendroaspis polylepis* (Günther) — Black mamba.

Certainly the best known and most feared snake of the Lowveld and is found throughout the Park. Large specimens of up to 13 ft. in length are known. The following localities are cited: Satara-Orpen Road, Magondswane Spruit, Numbi, Letaba Circular Drive, Matukwane, Nwashitsumbe windmill, Tshokwane, Kruger Plaque Hills, between Mazite and Kumane, Nunweni Drift on the Hutomi Road, near Manzi-mahle, Pretoriuskop, Skukuza Staff Village.

Family 6 — Viperidae.

1. *Bitis arietans* (Merrem) — Puff-adder.

Another well-known scaly inhabitant of the Park which is commonly found. Localities: Skukuza Rest Camp, Kingfisherspruit, Timbavati, Letaba Rest Camp, Malelane Rest Camp, Nwanetzi, Mareyo Windmill, Shaben Experimental Plots, Doispan Road, Gomondwane road to Lower Sabie, near Machai Pan, Tshokwane and Pretoriuskop.

2. *Causus defilippi* (Jan.) — Snubnose night adder.

Was often seen in the southern and central parts of the Park during the past summer. Pretoriuskop, Skukuza, Kingfisherspruit, Mahlobyanine, Malelane, and Mbyamide Experimental Plots.

3. *Causus rhombeatus* (Lichtenstein) — Common night adder.

Less common than the former species but has been recorded from Crocodile Bridge, Nelspruit, Timbavati and Chalons Spruit.

According to existing distribution data it may be expected that the following will also be found in the Park, but up to the present they have not been recorded.

Typhlopidae.

1. *Typhlops bibronii* (A. Smith) — Brown yellow-bellied earthsnake.

2. *Typhlops fornasinii* (Bianconi) — Blue-grey earthsnake.

3. *Typhlops mossambicus* (Peters) — Mozambique earthsnake.

Leptotyphlopidae.

1. *Leptotyphlops brevirostralis* (FitzSimons) — Blunt-nosed threadsnake.

2. *Leptotyphlops distantii* (—) — Distant's threadsnake.

Colubrinae.

1. *Boaedon lineatus* (Dumeril & Bibron) — Common brown house snake.

2. *Chlorophis hoplogaster* (Günther) — Green watersnake.

3. *Chlorophis neglectus* (Parker) — Eastern green watersnake.

4. *Chlorophis natalensis* (A. Smith) — Natal green watersnake.
5. *Lamprophis aurora* (Linnaeus) — Aurora or night snake.
6. *Lamprophis inornatus* (Dumeril & Bibron) — Olive-coloured house snake.
7. *Neusterophis laevis* (Günther) — Black water snake.
8. *Prosymna jani* (Biaconi) — Black-headed copper snake.
9. *Prosymna sundevalli* (A. Smith) — Sundevall's copper snake.
10. *Prosymna ambigua ambigua* (Bocage) — Bocage's copper snake.

Boiginae.

1. *Amblyodipsas microphthalmus* (Bianconi) — White-lipped snake.
2. *Amplorhinus multimaculatus* (A. Smith) — Smith's many-spotted snake.
3. *Aparallactus guentheri* (Boulenger) — Günther's black-headed snake.
4. *Chamaetortus aulicus* (Günther) — Günther's banded snake.
5. *Calamelaps warreni* (Boulenger) — Warren's ground snake.
6. *Psammophis crucifer* (Daudin) — Cross-marked sand snake.
7. *Pythonodipsas carinata* (Günther) — Keeled snake.
8. *Rhamphophis rostratus* (Peters) — Eastern hook-nosed snake.
9. *Xenocalamus bicolor transvaalensis* (Methuen) — Transvaal shovel-nosed snake.
10. *Xenocalamus bicolor mehowi* (Peters) — Peter's shovel-nosed snake.

Elapidae.

1. *Dendroaspis angusticeps* (A. Smith) — Green mamba.
2. *Elapsoidea guentherii* (Bocage) — Günther's garter snake.
3. *Elaps dorsalis* (A. Smith) — Striped garter snake.
4. *Naja melanoleuca* (Hallowell) — Black-lipped cobra.

Viperidae.

1. *Bitis cornuta* (Daudin) — Horned adder.
2. *Bitis atropos* (Linnaeus) — Mountain adder.
3. *Atractaspis bibronii* (A. Smith) — Oviparous adder.

4. A V E S

A systematic survey of the bird life in the Kruger Park (species and distribution) will be undertaken shortly in co-operation with the Transvaal Museum. This is a long-term project which will extend over a number of seasons (essential if migratory birds are to be studied properly).

The Rand Bird Club is said to have compiled a list of more or less 390 species, which may be found in the Park. The former Senior Ranger identified 276 species during his term of office.

Provisionally, the following general observations, recorded during the year, are given. Distribution data, given here, will later be elaborated into complete check lists and distribution charts. (McLachlan and Liversidge's classification used throughout).

SUB-CLASS — ORNITHURAE (*Neornithes*).

ORDER — STRUTHIONES.

Family — *Struthionidae*.

Ostriches (*Struthio camelus* — Linnaeus) are thriving in the regions north of the Olifants River and in spite of wide-spread uncontrolled veld-fires during the past winter months and early summer, have apparently had a good breeding season. Last year, during June, a group of 56 (the majority being young birds) were seen repeatedly in the Magamba-Nwashitsumbe area. During July a nest containing 37 eggs was found near the Masanje windmill, but unfortunately the hyaenas discovered the nest in late August and destroyed it completely. Other groups of ostriches numbering up to 17 were seen regularly in certain places, e.g. along the Malonga fire-break road, near Nwambu, Kloppefontein, the Shawu area, the Nkulumbene and Makadze fire-break roads, Tropic of Capricorn fire-break road and south of Punda Maria on the fire-break road to Mapongola.

The first chickens of the past season in the North, were seen on 4th October last year, between Shingwedzi and Punda Maria.

Conditions in the central region are less promising despite the single record of the presence of 40 ostriches in the vicinity of Gudzane. The breeding season was impeded by wide-spread accidental veld fires and this year no young birds were seen in the Mlondozi area. Elsewhere in this section, the broods were small and few. The first chickens were seen towards the end of September along the Nwanetzi road. New localities recorded this year for the central region are Sweni dam area and Mafagalamba.

In the area south of the Sabie River, ostriches were seen on three occasions only during the year — a lone hen, south of Mlanganswane and at Panama, and a cock near Skipberg. The chance of survival of these birds is slight unless drastic action is taken to re-establish them in their old haunts, where they were once present in great numbers.

ORDER — PODICIPEDES.

Family — *Podicipidae*.

Cape dabchicks (*Podiceps ruficollis*. Pallas), have been observed regularly on dams in the Pretoriuskop section as well as at Kumane, Hutomi, Klopfontein and Wambia pan.

ORDER — STEGANOPODES.

Family — *Phalacrocoracidae*.

Reed cormorants (*Phalacrocorax africanus*. Gmelin) are not plentiful but have been recorded along the Sabie River and at the Orami Dam, while the whitebreasted cormorant (*Phalacrocorax carbo*. Linnaeus) has been seen at Pafuri and along the Olifants River (Gorge area).

Family — *Anhingidae*.

South African darters (*Anhinga rufa*. Lacépède & Daudin) have been found in various localities this year for instance at Shingwedzi Drift, Kukumzane Pan, Orpen Dam and Mlondozi Dam.

ORDER — GRESSORES.

Family — *Ardeidae*.

Two common grey herons (*Ardea cinerea*. Linnaeus) were observed at Gudzane during November. Black-headed herons (*Ardea melanocephala*. Vigors & Children) were recorded at Machai pan and at a permanent waterhole in the Timbavati River. The great white heron (*Casmerodius albus*. Linnaeus) is rare in the Park, yet has been seen at the Zabala Waterhole in the Orami and at the Olifants-Letaba confluence. Goliath herons (*Ardea goliath*. Cretzschmar) were very much in evidence this year and were found among other localities, at Hape Pan, along the Timbavati, Olifants River falls (breeding on island rock on 11/9/58), Skukuza, Tendi Drift and Mlondozi Dam. The same was true of the cattle egrets (*Bubulcus ibis*. Linnaeus) which were widely distributed this year and found in fairly large flocks at, among other localities, Shawu, Bangu Windmill, near Letaba Camp, Pafuri, Mahlangene, Gudzane Dam and with a herd of blue wildebeest between Tshokwane and Mazite. Green-backed herons (*Butorides striatus*. Linnaeus) are plentiful along the Sabie and Sand Rivers and have also been seen at Mbyamide Drift and Gudzane Dam. The Cape bittern (*Botaurus stellaris*. Linnaeus) has been observed at Bangu-east dam. A lone specimen (hen) of the rare squacco heron (*Ardeola ralloides*. Scopoli) was found at the Machai Pan during October.

Family — *Scopidae*.

A hammerhead (*Scopelus umbretta*. Gmelin) nested at Kloppefontein during June.

Family — *Ciconidae*.

This year marabou storks (*Leptoptilos crumeniferus*. Lesson) and white storks (*Ciconia ciconia*. Linnaeus) arrived in large numbers and were observed throughout the Park. The distribution data, concerning the latter species, recorded annually by the former Senior Ranger, is still being collected and recorded monthly. It is noteworthy that a few of these migratory birds remained in the Park until late June (among other localities, at Hlambandlovu Pan) and appeared again early in December in the Crocodile Bridge Section. In December large flocks of 100 and more were observed on burnt veld (stretches) at Saliji and at Pretoriuskop in March. Two were still seen on 17th July at Sabie Poort. Marabous were still found locally in late autumn and 6 were observed at Bango windmill on the 25th June. This year, during March, no less than 40 of these birds were seen at this windmill and a few at a buffalo carcass at Hape Pan, Pafuri. Saddlebill storks (*Eppipiorhynchus senegalensis*. Shaw) were recorded at Mutlumbi drift, Skukuza, Shingwedzi Drift, Kukumezane Pan, Bangu-east Dam, Machai pan, and Nsemene windmill. One of these birds was observed taking tiny barbel from a shallow pool in the Nwamiri River; after swallowing a few, it carried one barbel out (the last in the pool) and gave it to another saddlebill stork, (probably the female), which was about 100 yards away.

A few African openbill storks (*Anastomus lamelligerus*. Temminck) could be seen nearly always at the Gudzane Dam, where a group of black storks (*Ciconia nigra*. Linnaeus) also sojourned. A flock of approximately 25 of the latter kind were found on a sandbar in the Olifants River and lone specimens were also seen at Pretoriuskop, Kloppefontein Dam, and Olifants River waterfalls. A few African woolly-necked storks (*Dissoura episcopus*. Boddaert) were seen at Kloppefontein Dam and also at Gudzane Dam in October. This year, during February, seventeen wood ibis (*Ibis ibis*. Linnaeus) (eleven young birds among them) visited Mahlangene.

Family — *Threskiornithidae*.

At Skukuza, during the summer months, the Hadeba ibis (*Hagedashia hagedas*. Latham) flew back noisily in the evenings to their roosts.

Family — *Plataleidae*.

This year the African spoonbill (*Platalea alba*. Scopoli) was observed only at Machai Pan.

ORDER — ANSERES

Family — Anatidae.

As a result of the scattered rains of the past season there were few stretches of water favourable for the gathering of large numbers of water-birds. The following, however, were recorded in the course of the year:

Knob-billed duck (*Sarkidiornis melanotos*. Pennant) in the Sabie at Skukuza, Satara Dam, Kumane Dam, Hutomi Dam, Mlondozi Dam and Ngirivane Windmill, as well as in pans along the western boundary of the Kingfisherspruit Section. Spurwing geese (*Plectropterus gambensis*. Linnaeus) visited the pans along the eastern and western boundaries of Punda Maria Section during the summer of 1958, and the Pumbe Pan on the eastern border of the Satara Section, during February of this year. During July an Egyptian goose (*Alopochen aegyptiacus*. Linnaeus) with chicks was seen at Lion Pan and in early November these birds had also nested in dry trees at Gudzane Dam. A flock of 22 white-faced duck (*Dendrocygna viduata*. Vieillot) was counted on Mr. Wiid's dam in the Crocodile River and this species was seen also at Kukumezane Pan, Red Gorton Windmill, and Lion Pan. During February a hen with two young chicks was found at Mlambane Drift. Black duck (*Anas sparsa*. Eaton) were observed even in the winter at Lion Pan, along the Sabie River at Luby-Luby, Machai Pan and other places. During the previous rainy season whistling duck (*Dendrocygna bicolor*. Vieillot) visited the pans along the eastern boundary in the Malonga sandveld. A few redbill teal (*Anas erythrorhynchos*. Gmelin) were recorded at Shingwedzi Drift, Machakoz and Wambia Pans.

ORDER — FALCONES.

Family — Sagittariidae.

Secretary birds (*Sagittarius serpentarius*. Miller) are found frequently and the following localities have been recorded: Lion Pan, Nwashitsumbe fire-break road, Mlondozi area, Nahpe road, and between Orpen and Satara.

Family — Aegypiidae.

A white-backed vulture (*Gyps africanus*. Salvadori) was seen nesting on the 5th June in a tall knobthorn tree at Mtjulu dam-site. These birds of prey also attacked the nests of queleas breeding in the central district during February. The strange vulture, seen by the Ranger of the Crocodile Bridge Section, at a lion carcase in the Nwatimhiri, in the company of white-backed vultures and black vultures (*Torgos tracheliotus*. Forster) was probably a young specimen of the Egyptian vulture (*Neophron percnopterus*. Linnaeus) or a white-headed vulture (*Trigonoceps occipitalis*. Burchell) and not a palm-nut vulture (*Gypohierax angolensis*. Gmelin), as he supposed.

Family — *Falconidae*.

This year pigmy falcons (*Poliohierax semitorquatus*. A. Smith) were seen in the south at Sithlabe, on the Nahpe road and near Mlambane Dam. During February a number of Naumann's kestrels (*Falco naumanni*. A. Smith) were observed along the Mlondozi fire-break road.

Family — *Aquilidae*.

Wahlberg's eagles (*Aquila wahlbergi*. Sundevall) played an important role in the destruction of quelea colonies which attempted breeding in the central district this year during February. One of these birds of prey was seen in the Nwatimhiri bush having killed a 10 ft. mamba. On the eastern boundary, to the south of Pafuri, a martial eagle (*Polemaëtes bellicosus*. Daudin) was seen capturing a duiker lamb and carrying it into the air; while another pillaged the poultry stock at Satara. Other specimens were recorded on the Malelane road south of the Mbyamide drift, west of Nwashitsumbe and at Lion Pan. In the Crocodile Bridge Section, a fish eagle (*Haliaëtus vocifer*. Daudin) was observed devouring a barbel, the weight of which must have been at least 12 lbs.

A yellow-billed kite (*Milvus aegyptius*. Gmelin) caught a large puff-adder near Letaba. During December a number of black kites (*Milvus migrans*. Boddaert) were seen at Mazite. The little-banded goshawk (*Accipiter badius*. Gmelin) and the little sparrow-hawk (*Accipiter minullus*. Daudin) were observed on the road to the Olifants River waterfalls near the Gorge Camp. The latter was seen also at Punda Maria.

Bateleur eagles (*Terathopius ecaudatus*. Daudin) were again recorded generally but the black eagle (*Aquila verreauxi*. Lesson) is as yet known only from the cliffs along the Levubu River. Black-breasted snake-eagles (*Circaëtus pectoralis*. A. Smith) have been seen on the road to Dongadziba and at Mbyashishe Drift, and a tawny eagle (*Aquila rapax*. Temminck) at Machai Pan.

ORDER — GALLI.

Family — *Phasianidae*.

Swainson's francolins (*Pternistis swainsoni*. A. Smith) with young were found at Sweni (28/3/58), between Dzombo and Shingwedzi (10/4/58), Nwanetzi Drift (20/5/58) and on the road to Nwashitsumbe (18/6/58) among other localities. Natal francolins (*Francolinus natalensis*. A. Smith) also breed in late autumn or early winter, and during May, a hen with a brood of chicks was seen at Nwanetzi, as well as near Orami Dam in June. The first Coqui francolin (*Francolinus coqui*. A. Smith) chicks were encountered, towards the end of November, in the Pretoriuskop vicinity. A crested francolin (*Francolinus sephaena*. A. Smith) with two very young chickens was observed on the 16th

December, next to the Doispán Road. Quite a number of the rarer Shelley's francolin (*Francolinus shelleyi*. Grant) was recorded during the year — among other localities, on the patrol road between Malelane and the upper Mtjulu, at Shaben, Malitenga and Punda Maria aerodrome, near Shipikane mouth, and also possibly on the new fire-break road encircling the Nyandu Bush. This year harlequin quails (*Coturnix delegorguei*. Delegorgue) were exceptionally numerous, particularly on the eastern grass plains. One was encountered during July at Nwari-wahlangari, which is exceptional for that particular time of the year. This year, during March, numbers of harlequin quails with half grown chicks were observed in the Malitenga area.

Family — *Numididae*.

In general guinea-fowls (*Numida meleagris*. Linnaeus) had a good breeding season this year, especially in the Punda Maria section where large numbers of chicks were observed from the end of January. Early in April last year, 15 fully-grown guinea-fowl, accompanied by 25 chicks, were seen at Mtjulu Drift and in December a guinea-fowl nest containing 23 eggs was found on one of the Faai experimental plots.

Towards the end of February, the Ranger at Pretoriuskop reported that he had encountered a guinea-fowl family consisting of 3 adult birds, 2 young birds of 2—3 months, and one chick, scarcely two weeks old.

Crested guinea-fowls (*Guttera edouardi*. Hartlaub) were seen again this year at Hape (Pafuri), the Nyala road (Pafuri), Dongadiziba, Shipudze (large flocks) and during September, also a fairly large flock in the Nyandu bush on the eastern boundary. In the central region, traces of these birds were again observed in the Bangu poort. During November, Mr. Mockford of Pafuri was presented with a young crested guinea-fowl chick by Portuguese Natives. It has also been noted that crested guinea-fowl in the Matukwane area, feed on the fruit of *Garcinia livingstoni*.

Family — *Turnicidae*.

This year kurrichane button-quails (*Turnix sylvatica*. Desfontaine) have also been seen in larger numbers than in previous years and particularly in the Shawu valley, between Pumbe and the Olifants River, in the vicinity of Shidzibane, and the Mlondozi-Nkuane area on the eastern boundary. The birds were still to be seen in the late winter.

ORDER — GRUES

Family — *Rallidae*.

Corn crakes (*Crex crex*. Linnaeus) were seen at Kukumenzane Pan, Mlondozi Pan, Shikelenkane Drift and on the way to Shingwedzi. The only water-

birds seen, during visits to the Mafayeni Spring, were black crakes (*Limnocorax flavirostra*. Swainson) which have a wide distribution in the Park.

Family — *Heliornithidae*.

Peter's finfoot (*Podica senegalensis*. Vieillot) was seen at the crocodile pool west of the Pafuri picnic spot, and at Sand River, also in the Sabie River.

Family — *Gruidae*.

Although the crowned crane (*Balearica regulorum*. Bennett) and the wattled crane (*Buggeranus carunculatus*. Gmelin) are both found in the adjoining Portuguese territory, they have not yet been observed in the Park.

Family — *Otididae*.

This year the kori bustard (*Ardeotis kori*. Burchell) was again seen frequently and the following localities have been recorded: Tendi experimental plots, a mile north of Sweni Drift, the Doispans wildebeest territorium, the Tropic of Capricorn fire-break road, Mlondozi fire-break north of Muntshu between Timabvati and Shisakashangondzo, between Shaben crossroads and Hippo Pool road, along the Nahpe road, at Dzombo, and the Dzombo experimental plots.

During June the red-crested korhaans (*Lophotis ruficrista*. A. Smith) were exceptionally numerous along the eastern boundary road between Pumbe and the Olifants River. Early in February this year a black-bellied korhaan hen (*Lissotis melanogaster*. Rüppel) with two half grown chicks was seen along the Mlondozi detour.

ORDER — LARO-LIMICOLAE.

Family — *Jacaniidae*.

African jacanas (*Actophilornis africanus*. Gmelin) are seen regularly on the pans and dams e.g. Machakoza Pan, Lion Pan, Orpen Dam, Gudzane Dam and others. A pan in the Olifants Poort area, near the eastern boundary, has been named Kukumezane Pan, from the Shangaan name for this bird.

Family — *Rostratulidae*.

During October two young painted snipe chicks (*Rostratula benhalensis*. Linnaeus) were found on the Nyamnyur Pan in the Shangoni Section, and a fully grown bird at Dzundwene Spring, during March.

Family — *Charadriidae*.

Black-winged plovers (*Stephanibyx melanopterus*. Cretzschmar) are found practically throughout the Tshokwane wildebeest territorium and at the Skuku-

za Koppies, while crowned plovers (*Stephanibyx coronatus*. Boddaert) have been recorded from Kukumezane Pan, the upper reaches of the Mlondozi, south of the Pretoriuskop camp, and between the Timbavati and Shisakashangondzo Rivers. Blacksmith plovers (*Hoplopterus armatus*. Burchell) have been observed along the Letaba on a few occasions and wattled plovers (*Afribyx senegallus*. Linnaeus) in the Pretoriuskop area.

Family — *Scolopacidae*.

A few Ethiopian snipe (*Capelle nigripennis*. Bonaparte) were seen last April at Tendi Drift. The wood sandpiper (*Tringa glareola*. Linnaeus) and the three-banded sandplover (*Charadrius tricollaris*. Vieillot) were also encountered at the Bangu Windmill, and the green shank (*Tringa nebularia*. Gunnerus) at Sand River bridge.

Family — *Burhinidae*.

Both the Cape dikkop (*Burhinus capensis*. Lichtenstein) and the water dikkop (*Burhinus vermiculatus*. Cabanis) are fairly common, widely distributed in the Park, and the latter, especially, is frequently observed at night on the roads near water.

Family — *Glareolidae*.

Every year quite a number of bronze-wing coursers (*Rhinoptilus chalcopterus*. Temminck) are killed on the roads at night by careless drivers.

ORDER — COLUMBAE.

Family — *Pteroclididae*.

Double-banded sandgrouse (*Pterocles bicinctus*. Temminck) accompanied by very young chicks (one or two) were recorded on 4th June from the Mlam-bane fire-break road, on 19th June from a point two miles south of the Malahla-panga branch road, and on 22nd August on the eastern boundary road near the crossroads at Malanga.

Family — *Columbidae*.

Last year Namaqua doves (*Oena capensis*. Linnaeus) were present in large numbers, particularly during the autumn and summer months and were also observed more frequently in the northern district. The following localities among others, were recorded: Makonkolwine, Tendi River, Gudzane, Bango between Dzombo and Shingwedzi, Kloppefontein, Stangene, and in the Nyan-du Bush.

Angola mourning doves (*Streptopelia dicipiens*. Finsch & Hartlaub) were found at Pafuri, as well as at Letaba and Satara.

Family — *Treronidae*.

The excellent crop of wild fruits of the past season attracted large flocks of green pigeons (*Treron calva delalandii*. Bonaparte) and it is seen that they fed on the fruits of *Ficus petersi*, *F. soldonella*, *F. sonderi*, *F. ingens*, *Berchemia discolor*, *Mimusops zeyheri*, *Cassine schlechteri*, and others.

ORDER — PSITTACI.

Family — *Psittacidae*.

Brown-headed parrots (*Poicephalus cryptoxanthus*. Peters) — were noted frequently, especially during the autumn months at Pretoriuskop, Skukuza, Nsosweni waterhole, Skipberg, Mbadze Waterhole, Machai Pan and other places. It was observed that these birds also fed greedily on the fruit of *Combretum coriaceum*.

ORDER — CUCULI.

Family — *Musophagidae*.

Purple-crested loeries (*Gallirex porphyreolophus*. Vigors) were seen at Sha-ben, along the Mtsawu and at Shipudze mouth, while grey loeries (*Corythaixoides concolor*. A. Smith) constantly draw attention by their taunting call.

Family — *Cuculidae*.

One day in April last year large numbers of Burchell's coucals (vleiloeries) (*Centropus superciliosus burchelli*. Swainson) were observed on marshy spots between Letaba and Tendi burning sites, immediately after a road had been scraped.

The red-chested cuckoo (Piet-my-vrou) (*Cuculus solitarius*. Stephens) was heard for the first time on 14th October at Punda Maria. Striped-crested cuckoos (*Clamator levaillantii*. Swainson) were also found at Punda Maria and the diederik cuckoo (*Chrysococcyx caprius*. Boddaert) at the Satara rest camp. The Jacobin cuckoo (*Clamator jacobinus*. Boddaert) is widely distributed.

ORDER — STRIGES.

Family — *Tytonidae*.

Grass owls (*Tyto capensis*. A. Smith) were found along the Nsikazi (during a veldfire) and on the Dzombo experimental plots, while a barn owl (*Tyto*

alba. Scopoli) chose the hollow trunk of a baobab tree, along the Machindudzi-Machai fire-break road, as shelter during the day.

Family — *Bubonidae*.

At night giant eagle owls (*Bubo lacteus*. Temminck) are found fairly often on the roads and the piercing call of the pearl-spotted owl (*Glaucidium perlatum*. Vieillot) is one of the most haunting of the Lowveld night sounds.

ORDER — CAPRIMULGI.

Family — *Caprimulgidae*.

The Mozambique night jar (*Caprimulgus fossii mossambicus*. Hartlaub) is abundant throughout the Park. A lone specimen of the rare pennant-wing night jar (*Macrodipteryx vexillarius*. Gould) is said to have been seen between Punda Maria and Dongadziba.

ORDER — MACROCHIRES.

Family — *Micropodidae*.

During the summer months the palm swift (*Cypsiurus parvus*. Lichtenstein) nests in the large mlala palms at Pafuri.

ORDER — COLLI.

Family — *Collidae*.

A considerable number of speckled mousebirds (*Colius striatus*. Gmelin) was seen at Skukuza during the summer as well as red-faced mousebirds (*Urocolius indicus*. Letham) at Pafuri, along the Crocodile River, and near the Skukuza Koppies.

ORDER — TROGONES.

Family — *Trogonidae*.

The rare and shy narina trogon (Bosloerie) (*Apaloderma narina*. Stephens) has so far been seen only along the Levubu at Pafuri.

ORDER — CORACIAE.

Family — *Coraciidae*.

The first broad-billed roller (*Eurystomus glaucurus*. Müller) was seen, about the middle of October, near Punda Maria and later also at Tulamila (Pafuri), along the Timbavati River, and in Olifants Poort. The Mozambique roller (*Coracias naevia*. Daudin) was recorded in the south at the Faai Spruit. Euro-

pean rollers (*Coracias garrulus*. Linnaeus) appeared a little later than usual in the central district and then were seen more frequently than the lilac-breasted roller (*Coracias caudata*. Linnaeus).

Family — *Alcedinidae*.

The giant kingfisher (*Megaceryle maxima*. Pallas) was seen fairly frequently at the Levubu-Limpopo confluence, Olifants-Letaba confluence, and near Letaba Rest Camp among other localities. During December Angola kingfishers (*Halcyon senegalensis*. Linnaeus) were recorded for the first time, at Pretoriuskop. The half-collared kingfisher (*Alcedo semitorquata*. Swainson) was seen along the Sabie, as well as the brown-hooded kingfisher (*Halcyon albi-ventris*. Scopoli) which frequents Lion Pan and also Punda Maria. Malachite kingfishers (*Corythornis cristata*. Pallas) and Pied kingfishers (*Ceryle rudis*. Linnaeus) have a general distribution.

Family — *Meropidae*.

On 1st May, last year, European bee-eaters (*Merops apiaster*. Linnaeus) were still encountered at Pafuri and had returned there again towards the middle of September and a month later, to Pretoriuskop. Carmine-breasted bee-eaters (*Merops nubicoides*. Des Murs & Pucheran) were exceptionally numerous during the summer months and large flocks of these were seen during the veld burning in February at Pretoriuskop, Nahpe and Satara. White-fronted bee-eaters (*Mellittophagus bullockoides*. A. Smith) were again noted this year in August at Pafuri, and also later in September along the Olifants River at Tseri and Brussels. The little bee-eater (*Mellittophagus pusillus*. Müller) was observed at Shilowa Poort.

Family — *Upupidae*.

This year the African hoopoes (*Upupa africana*. Bechstein) were well distributed and the red-billed hoopoes (*Phoeniculus porphyreus*. Miller) were found, at Stangene, the Ngirivane fire-break road, the western boundary at Mahlobyanine and along the Nahpe road among other localities.

Family — *Bucerotidae*.

In June last year it was reported that a small group of ground hornbills (*Bucorvus leadbeateri*. Vigors) was begging from tourists along the road, near Mutlumubi Drift. It was observed how one of these birds captured a puff-adder, flung it about violently for a while, threw it into the air and then swallowed it whole. This year, during March, a few ground hornbills were seen immediately south of the Pretoriuskop camp, for the first time. Towards the end of October, last year, five trumpeter hornbills (*Bycanistes buccinator*.

Temminck) were found in a Jakkalsbessie tree at Wiid's dam, near Boulders. One was busy building a nest in a hollow, high up in the tree. In the Malelane Section, these birds have been observed at Kaapmuiden, Rockvale and in the mountains, and this year have also been recorded along the Shitsakana Spruit (Sataru), Tshokwane, the Timbavati-Shisakashangondzo confluence and at Mcosene between Numbi and Pretoriuskop.

The crested hornbill (*Bycanistes brevis*. Friedman) has so far been seen on one occasion only, and then by the Ranger of Punda Maria Section near Nkulumbene.

The crowned hornbill (*Lophoceros alboterminatus*. Büttikofer) has been seen at Tulamila (Pafuri) and its call has been heard at Shipudze Mouth, and along the Sabie to the east of Skukuza.

During the summer months of this year, it was noteworthy that there was a decided decrease in the numbers of the red-billed hornbills (*Lophoceros erythrorhynchus*. Temminck) while there were still large numbers of grey hornbills (*Lophoceros nasutus*. Linnaeus) as well as the yellow-billed species (*Lophoceros flavirostris*. Rüppell).

ORDER — PICI.

Family — Capitonidae.

Crested barbets (*Trachyphorus vaillantii*. Ranzani) have a wide distribution in the Park and black-collared barbets (*Lybius torquatus*. Dumant) have been seen on occasions at Punda Maria, Shingwedzi, Letaba, Skukuza and Lower Sabie. Pied barbets (*Tricholaema leucomelas*. Boddaert) have so far been seen only near Punda Maria.

Family — Indicatoridae.

The greater honey guides (*Indicator indicator*. Sparrman) frequently attempted to draw our attention to honeycombs in the vicinity while we were doing field work.

Family — Picidae.

The cardinal woodpecker (*Dendropicos fuscescens*. Vieillot) is plentiful and widely distributed, while Bennett's woodpecker (*Campethera bennetti*. A. Smith) has been observed at Punda Maria.

Family — Jyngridae.

The red-breasted wryneck (*Jynx ruficollis*. Wagler) has been recorded once only, at Kingfisherspruit.

ORDER — PASSERES.

SUB-ORDER — OSCINES.

Family — *Alaudidae*.

During June, chestnut-backed finch-larks (*Eremopterix leucotis*. Stanley) with young chicks were encountered along the Eastern boundary between Wambia and Malonga.

Family — *Hirundinidae*.

Last year the European swallows (*Hirundo rustica*. Linnaeus) left the Pretoriuskop Section between 9th and 14th April. This year they started congregating in large numbers on the telephone wires towards the middle of March.

During November young pearl-breasted swallows (*Hirundo dimidiata*. Sundevall) were observed in the Hape hut at Pafuri. Other species which have already been recorded, include: Lesser striped swallows (*Cecropis abyssinica unitatis*. Cslater & Pread), wire-tailed swallows (*Hirundo smithii*. Leach), mosque swallows (*Cecropis senegalensis monteiri*. Hartlaub), rock martins (*Ptyonoprogne fuligula*. Lichtenstein), white-throated swallows (*Hirundo albicularis*. Strickland), cliff swallows (*Perochelidon spilodera*. Sundevall) and sand martins (*Riparia riparia*. Linnaeus).

Family — *Dicruridae*.

The fork-tailed drongo (*Dicrurus adsimilis*. Bechstein) has a general distribution and the square-tailed drongo (*Dicrurus ludwigii*. A. Smith) has been recorded at Punda Maria and Pafuri.

Family — *Oriolidae*.

The black-headed oriole (*Oriolus larvatus*. Lichtenstein) is one of the best known birds in the Kruger Park and the golden oriole (*Oriolus oriolus*. Linnaeus) is a regular visitor. This year, the latter was also recorded between Tshokwane and Saliji.

Family — *Corvidae*.

During the winter months pied crows (*Corvus albus*. Müller) were observed regularly at the Punda Maria Camp and also visited the Pretoriuskop camp during July. During October a few were seen at the Skukuza compound for the first time.

Family — *Paridae*.

Black tits (*Parus niger*. Vieillot) were observed eating the scale on the leaves of a Rooi-essenhout tree in front of our office.