

Check list

An annotated check list of the birds of Qwaqwa National Park

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This paper presents a check list of 179 bird species occurring in the Qwaqwa National Park which borders the eastern part of Golden Gate Highlands National Park. Data on the distribution, status, habitat preferences and breeding were obtained during several visits between December 1992 and March 1995. The following habitats were preferred: grassland, montane grassland, woodland, rocky hillsides, mountain slopes and riverine areas with *Phragmites* reedbeds. The conservation of waterbirds, raptors and other localised species such as Orangebreasted Rockjumper, Palecrowned Cisticola, Mountain Pipit and Gurney's Sugarbird is important as these species occur in specialised habitats.

Key words: Qwaqwa National Park, birds, status, relative abundance, habitat preference, breeding, conservation.

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Introduction

The Qwaqwa National Park (QQNP) was established in 1992 and is the newest national park in the Free State Province under the jurisdiction of the Highlands Development Corporation (T.A. Hugo *pers. comm.*). The ecology of the area is not well documented. With the exception of bird surveys (Earlé & Grobler 1987) and data collected for the South African Bird Atlas Project (Harrison 1987), little is known of the avifauna of this region. As these surveys do not specifically refer to protected areas, the aim of this study was mainly to provide a bird species check list of this new protected area which is adjacent to Golden Gate Highlands National Park (GGHNP). The ecology of GGHNP is well documented, and data on the geology (Groenewald 1986), vegetation (Potgieter

1982), mammals (Rautenbach 1976), birds (Earlé & Lawson 1988; Hutsebaut *et al.* 1992; Botha 1993), reptiles and amphibians (Bates 1991) are available. No such information is at present available for QQNP (although considered to be similar to GGHNP), but surveys of the vegetation, mammals, reptiles and amphibians, and insects are currently being conducted by staff of the National Museum, Bloemfontein.

This paper provides data on the occurrence of 179 bird species in QQNP and their status, habitat preferences, breeding activities, and conservation are discussed.

Study area

The QQNP is situated between longitudes 28°24'S–28°35'S, and latitudes 28°32'E–

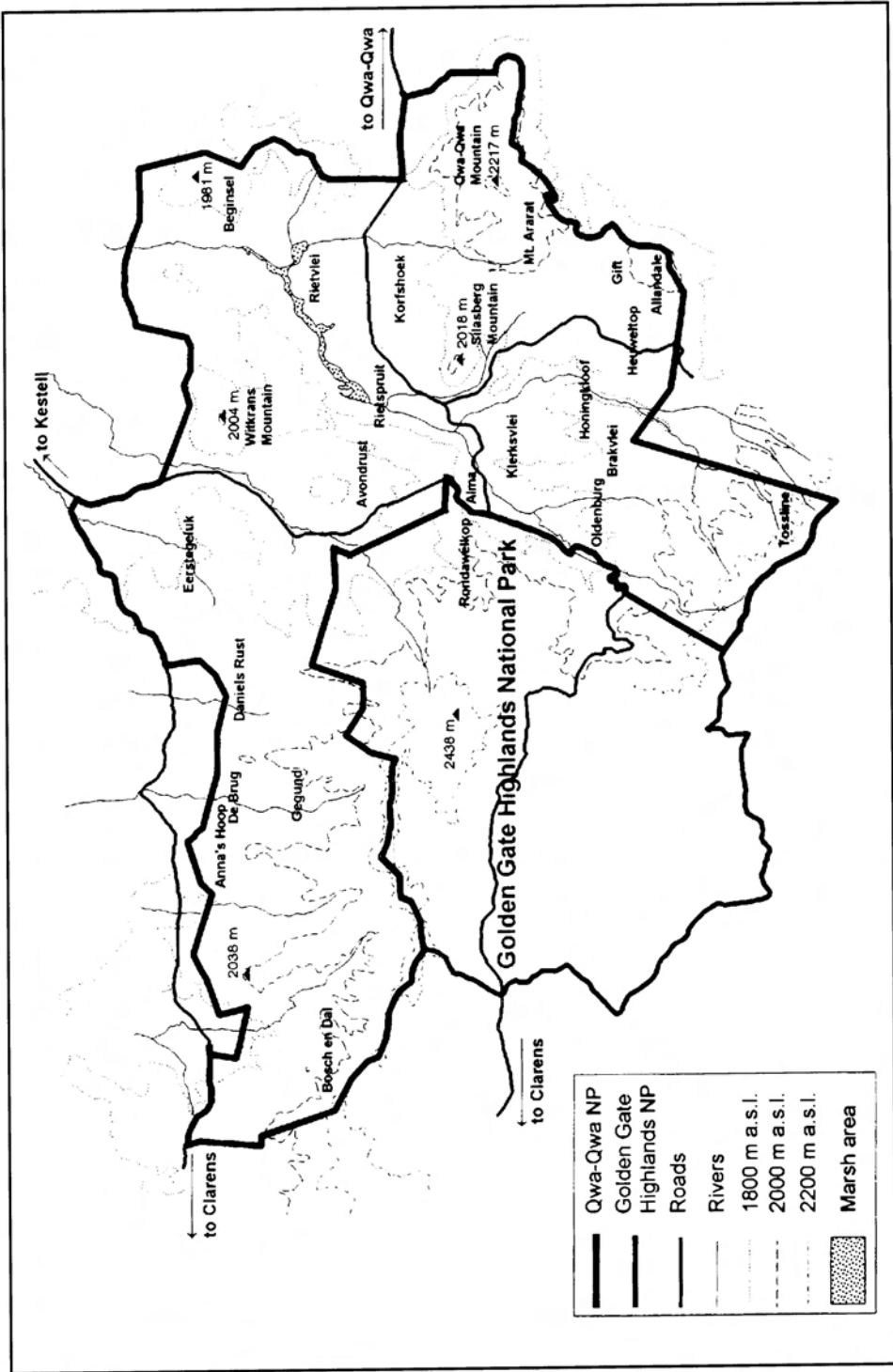


Fig. 1: Map of Qwaqwa National Park (QQNP) showing localities mentioned in text.

28°49'E in the north-eastern Free State. The QQNP covers an area of 21700 ha and is situated adjacent to the northern and eastern borders of GGHNP, extending eastward to Phuthaditjhaba (Figure 1). Altitudes range from 1700 m above sea level at the lower northern parts of QQNP to 2380 m at the highest point near the Lesotho border at the Tossline section. The eastern sections of the mountainous areas are characterised by deep valleys with dense vegetation on their slopes while Qwaqwa Mountain (2217 m) is on an isolated range near the southeastern border of the Qwaqwa National Park.

The vegetation of QQNP is similar to that of GGHNP (Earlé & Lawson 1988; Potgieter 1982). It is dominated by montane grassland in the higher-lying western sections of QQNP where the veld type is mainly Highland Sourveld with *Themeda - Festuca* Alpine veld above 2000 m (Acocks 1988). The QQNP is characterised by deep, sheltered gorges with sandstone kranzes in higher-lying areas. Here *Leucosidea sericea* dominates, with *Protea caffra* woodland on mountain slopes and plateau. Isolated plateaux such as Witkrans, Silasberg and Qwaqwa Mountain in the eastern sections have dense vegetation on the steep slopes gorges with *Leucosidea - Kiggelaria - Buddleja* patches, open tree savanna and *Protea caffra* woodland on mountain slopes. *Protea roupelliae* woodland is mainly confined to isolated areas at the higher altitudes. A large, extensive marsh area, dominated by *Phragmites* reedbeds, is situated along Kleinspruit, Rietspruit and Rietvlei. Drainage lines from the mountain slopes are surrounded by short marshy grass. As QQNP was previously farmland, several areas have been planted with exotic vegetation such as *Acacia mearnsii*, *Populus* spp., *Salix* spp. and *Pinus* spp., mainly along rivers and at staff houses.

Methods

Check lists of birds recorded at the QQNP were kept during weekly visits to study nectarivores between December 1992 and February 1995 (De Swardt

1993a; De Swardt 1995). During 1993 and 1994, organised surveys were conducted by the Orange Free State Ornithological Society (OFSOS) and bird lists were compiled. Staff at QQNP kept monthly records between January 1994 and March 1995 and were available for the authors. Birds were classified according to habitat types, viz. grassland (montane and lower altitude); woodland (*Leucosidea* hillside bush, riverine valleys and gorges); rocky hillsides; rivers, dams and marshy areas; *Protea roupelliae* woodland and exotic vegetation (Table 1) and their status and relative abundance determined based on these observations. Nomenclature and numbering follows Maclean (1993).

Table 1
Habitat preferences of bird species recorded at Qwaqwa National Park

Habitat preference	No. of species	Percentage of occurrence
Grassland	34	19,0
Montane grassland	11	6,1
Woodland	40	22,3
Rocky hillsides	32	17,9
Rivers and dams	45	25,2
Protea-veld	4	2,2
Exotic vegetation	7	4,0
Other (staff houses, etc.)	6	3,3
No. of species recorded	179	100%

Results

- 1 *Struthio camelus*
Ostrich
Volstruis

An introduced species and common breeding resident. Breeding has been observed during October 1994 and March 1995.

- 8 *Tachybaptus ruficollis*
Dabchick
Kleindobbertjie

Resident. Recorded in almost all months. Common on dams at Heuweltop and Rietvlei; breeding was recorded at Heuweltop dam.

55 *Phalacrocorax carbo*
Whitebreasted Cormorant
Witborsduiker

Resident. Common at Heuweltop and Rietvlei dams. Breeding at Rietvlei in a heronry in a *Salix* tree where a chick was raised.

58 *Phalacrocorax africanus*
Reed Cormorant
Rietduiker

Resident. Common at Rietvlei dam, also along rivers. Breeding at heronry in *Salix* tree at Rietvlei dam.

60 *Anhinga melanogaster*
Darter
Slanghalsvoël

Probably a visitor (recorded in November 1993 and March 1994).

62 *Ardea cinerea*
Grey Heron
Blou Reier

Resident. Common at dams at Heuweltop and Rietvlei; also along rivers and marshy areas.

63 *Ardea melanocephala*
Blackheaded Heron
Swartkopreier

Resident. Common in grassland and near marshy areas. Breeding noted during November 1993 and August 1994 at Rietvlei dam.

65 *Ardea purpurea*
Purple Heron
Rooireier

Localised resident at Rietvlei dam and a single bird was observed since December 1994.

68 *Egretta intermedia*
Yellowbilled Egret
Geelbekwitreier

Visitor. Individual birds recorded at Heuweltop dam and Rietvlei between November 1994 and March 1995.

71 *Bubulcus ibis*
Cattle Egret
Veereier

Resident. Common in grassland, marshy areas and dams. Breeding observed in November 1993.

72 *Ardeola ralloides*
Squacco Heron
Ralreier

Visitor. Recorded during December 1994 at Rietvlei dam. Probably a summer migrant.

76 *Nycticorax nycticorax*
Blackcrowned Night Heron
Gewone Nagreier

Vagrant. Recorded only during November 1993 at Rietvlei dam. Uncommon.

78 *Ixobrychus minutus*
Little Bittern
Woudapie

Probably a resident, first sighted in *Phragmites* reedbeds at Rietvlei during November 1993. Probably more common and several sightings of individual birds have been made in the same area since November 1994 (AB).

81 *Scopus umbretta*
Hamerkop

Resident. Common along rivers and dams.

83 *Ciconia ciconia*
White Stork
Witooievaar

Migrant. Recorded mostly during the summer months (November-March) in montane grassland, grassland and cultivated fields.

84 *Ciconia nigra*
Black Stork
Grootswartooievaar

Uncommon resident. Observed only in grassland and montane grassland near suitable nest sites.

86 *Ciconia abdimii*
Abdim's Stork
Kleinswartooievaar

Two separate groups of 14 and 22 birds were seen at De Brug and Bosch-en-dal during February 1995 (PG).

- 91 *Threskiornis aethiopicus*
Sacred Ibis
Skoorsteenveëer

Resident. Common at dams and riverine marshy areas.

- 92 *Geronticus calvus*
Bald Ibis
Kalkoenibis

Common resident. Observed mostly in small groups foraging in grassland areas or burnt grasslands during winter. Breeding was suspected with a known breeding site in adjacent GGHNP (Earlé & Lawson 1988) and active breeding (1994/95 season) at farm near Kestell (Welgelegen).

- 93 *Plegadis falcinellus*
Glossy Ibis
Glansibis

A single bird was observed at a farm dam in the Daniëlsrust area during January 1995 (PG).

- 94 *Bostrychia hagedash*
Hadedda Ibis
Hadedda

Resident. Common at dams, riverine areas and in gardens at staff houses. Roosts mostly in large *Salix* trees along rivers which are possible nest sites.

- 95 *Platalea alba*
African Spoonbill
Lepelaar

A single bird was observed at Rietvlei during December 1994 and January 1995 (AB).

- 99 *Dendrocygna viduata*
Whitefaced Duck
Nonnetjie-eend

Visitor. Small groups were observed at Rietvlei and Heuveltop dams. A flock of 60 individuals was observed at Rietvlei during August 1994.

- 101 *Thalassornis leuconotus*
Whitebacked Duck
Witrugeend

Visitor. Recorded during May, June 1994 and a small group of five birds have been observed at Heuveltop dam since November 1994.

- 102 *Alopochen aegyptiacus*
Egyptian Goose
Koligans

Resident. Common at dams at Rietvlei and Heuveltop and along rivers.

- 104 *Anas undulata*
Yellowbilled Duck
Geelbekeend

Resident. Common at dams and small ponds in marshy areas. Breeding was confirmed in the Park when a female with nine ducklings were observed at Klerksvlei on 10 February 1995.

- 105 *Anas sparsa*
African Black Duck
Swarteend

Resident. Uncommon and localised along rivers and streams.

- 108 *Anas erythrorhyncha*
Redbilled Teal
Rooibekeend

A pair was observed at Heuveltop dam in November 1994 and at Rietvlei on 28 December 1994 (AB & ES).

- 116 *Plectropterus gambensis*
Spurwinged Goose
Wildemakou

Resident. Uncommon at dams and cultivated areas.

- 117 *Oxyura maccoa*
Maccoa Duck
Bloubekeend

Probably a visitor to Heuveltop dam, recorded in February 1994 and later again since November 1994.

118 *Sagittarius serpentarius*
Secretarybird
Sekretarisvoël

Resident. Commonly recorded in grassland areas. Breeding suspected as a male was observed displaying at Honingkloof during December 1994.

119 *Gypaetus barbatus*
Bearded Vulture
Baardaasvoël

Vagrants from GGHNP and adjacent Lesotho are suspected to forage over QQNP, where they are uncommon (Earlé & Lawson 1988; Botha 1993).

122 *Gyps coprotheres*
Cape Vulture
Kransaasvoël

Visitor. Uncommon in high mountainous areas.

127 *Elanus caeruleus*
Blackshouldered Kite
Blouvalk

Resident. Common in lower-lying grassland areas. Breeding was noted in a *Pinus* spp. in the Heuweltop area (AB).

131 *Aquila verreauxii*
Black Eagle
Witkruisarend

Resident. Localised in high, mountainous areas, soaring above sandstone cliffs. A pair was observed at Rondawelkop (GGHNP) and in the Witkrans section. Breeding.

139 *Lophaetus occipitalis*
Longcrested Eagle
Langkuifarend

Probably a visitor to the Klerksvlei area. Recorded during November, December 1994 and later during April 1995 near a large patch of exotic trees at Klerksvlei (AB).

148 *Haliaeetus vocifer*
African Fish Eagle
Visarend

Vagrant. Recorded during April 1994.

149 *Buteo buteo*
Steppe Buzzard
Bruinjakkalsvoël

Migrant (November-April). Common in low-lying grassland areas.

152 *Buteo rufofuscus*
Jackal Buzzard
Rooiborsjakkalsvoël

Resident. Common at higher altitudes in QQNP. Observed in areas adjacent to GGHNP, at Honingkloof and at Qwaqwa Mountain.

155 *Accipiter rufiventris*
Redbreasted Sparrowhawk
Rooiborsspewer

Probably resident. Recorded occasionally in montane grassland areas, and hunting over wooded riverine valleys. Breeding activities were noted with active nests at Rietspruit and Anna's Hoop (AB & PG).

168 *Circus maurus*
Black Harrier
Witkruispaddavreter

Resident. Common in montane grassland areas.

169 *Polyboroides typus*
Gymnogene
Kaalwangvalk

Resident. Common in high, mountainous areas (sandstone kranzes), mainly at Alma near Rondawelkop.

172 *Falco biarmicus*
Lanner Falcon
Edelvalk

Resident. Uncommon, seen in vicinity of sandstone kranzes and at Qwaqwa Mountain. Breeding suspected during August 1994.

180 *Falco amurensis*
Eastern Redfooted Kestrel
Oostelike Rooipootvalk

Migrant (November-March). Common in montane grassland and low-lying grassland

areas. Perches on telegraph poles along roads.

- 181 *Falco tinnunculus*
Rock Kestrel
Rooivalk

Resident. Common in mountainous areas and valleys with sandstone kranzes. Forages in grassland areas.

- 183 *Falco naumanni*
Lesser Kestrel
Kleinrooivalk

Very common summer migrant, from late November to March. Forage in large numbers over grassland areas and roosts in stands of *Eucalyptus* spp. (AB).

- 190 *Francolinus africanus*
Greywing Francolin
Bergpatrys

Common resident, mostly in montane grassland. Also recorded in lower-lying areas in wooded grassland. Breeding recorded during December 1994.

- 192 *Francolinus levaillantii*
Redwing Francolin
Rooivlerkpatrys

Common resident in montane grassland habitats, but also in lower-lying grassland areas near Eerstegeluk in the northern section of QQNP.

- 199 *Francolinus swainsonii*
Swainson's Francolin
Bosveldfisant

Common resident, mostly along wooded riverines and low-lying areas of QQNP. Breeding recorded in March.

- 200 *Coturnix coturnix*
Common Quail
Gewone Kwarteltjie

Common resident in grassland and marshy areas along drainage lines of rivers.

- 203 *Numida meleagris*
Helmeted Guineafowl
Gewone Tarentaal

Abundant resident especially common in wooded grassland areas. Breeding observed in March.

- 208 *Anthropoides paradiseus*
Blue Crane
Bloukraanvoël

Uncommon visitor to grassland areas observed mostly in flight. Breeding was observed at Spelonken between January and March 1995 (PG).

- 209 *Balearica regulorum*
Crowned Crane
Mahem

Common resident in the grassland and the extensive marshy areas at Rietspruit and Brakvlei.

- 210 *Rallus caerulescens*
African Rail
Afrikaanse Riethaan

A visitor in the *Phragmites* reedbeds and was heard calling for the first time at Rietvlei during August 1994. An individual was again observed during January and February 1995 (AB).

- 211 *Crex crex*
Corncrake
Kwartelkoning

A single bird was observed in the Honingkloof area during February 1995. The habitat where it was sighted is mainly rank grass with rainwater puddles (AB).

- 223 *Porphyrio porphyrio*
Purple Gallinule
Grootkoningriethaan

Several individuals were observed at Rietvlei between December 1994 and March 1995. A single bird was also seen at Heuveltop dam in January 1995 (AB).

- 226 *Gallinula chloropus*
Moorhen
Waterhoender

Uncommon resident not easily seen at dams at Rietvlei and Heuveltop.

- 228 *Fulica cristata*
Redknobbed Coot
Bleshoender
- Abundant resident, mainly seen at the dams at Rietvlei and Heuveltop. Breeding was recorded at Heuveltop between November 1994 and February 1995.
- 233 *Eupodotis cafra*
Whitebellied Korhaan
Witpenskorhaan
- Localised resident. A group of seven birds was observed in short grassveld in the Korfshoek and Beginsel areas between December 1994 and March 1995 (AB & PG).
- 234 *Eupodotis caerulescens*
Blue Korhaan
Blou Korhaan
- Localised resident to low-lying grassland areas. Several pairs have been observed in the grassland areas at Rietspruit, Korfshoek and Heuveltop, mostly during the summer months. Few winter observations (May-August) have also been made.
- 249 *Charadrius tricollaris*
Threebanded Plover
Driebandstrandkiewiet
- Visitor to the dams at Rietvlei and Brakvlei during January 1995. Foraged on the muddy shores when the dam's waterlevel was low (AB).
- 255 *Vanellus coronatus*
Crowned Plover
Kroonkiewiet
- Common resident seen mainly in grassland areas.
- 258 *Vanellus armatus*
Blacksmith Plover
Bontkiewiet
- Common resident at Heuveltop, Rietvlei and other small dams, and in marshy areas.
- 260 *Vanellus senegalensis*
Wattled Plover
Lelkiewiet
- Localised resident near the dams and marshy grassland at Rietvlei and Rietspruit.
- 286 *Gallinago nigripennis*
Ethiopian Snipe
Afrikaanse Snip
- A vagrant recorded during November 1994 in the marshy areas at Rietvlei (AB).
- 297 *Burhinus capensis*
Spotted Dikkop
Dikkop
- A resident observed mostly in the grassland areas at Eerstegeluk and at Rietvlei. Breeding was observed during December 1994.
- 349 *Columba guinea*
Rock Pigeon
Kransduif
- Abundant resident in rocky hillsides and montane grassland with wooded cliffs and kranzes. Also common in areas with exotic trees and in gardens.
- 350 *Columba arquatrix*
Rameron Pigeon
Geelbekbosduif
- Uncommon resident in sheltered kloofs and *Leucosidea* patches; also observed in exotic trees near Alma.
- 352 *Streptopelia semitorquata*
Redeyed Dove
Grootringduif
- Common resident of wooded riverine areas and in large exotic trees in gardens.
- 354 *Streptopelia capicola*
Cape Turtle Dove
Gewone Tortelduif
- Abundant resident. Confined to wooded habitats in *Protea*-veld, *Leucosidea*-hillside bush, riverine areas and gardens.
- 355 *Streptopelia senegalensis*
Laughing Dove
Rooiborsduifie
- Abundant resident in wooded areas, mainly low-lying hillsides and riverine areas.

356 *Oena capensis*
Namaqua Dove
Namaquaduifie

A localised species recorded several times at Honingkloof and Alma, mainly in gardens and near exotic trees.

377 *Cuculus solitarius*
Redchested Cuckoo
Piet-my-vrou

Common summer migrant in wooded riverine valleys (e.g. Honingkloof), *Leucosidea* - hillside bushes, small forest patches, exotic vegetation (e.g. in *Acacia mearnsii* at the summit of Qwaqwa Mountain during November 1994) and in gardens.

378 *Cuculus clamosus*
Black Cuckoo
Swartkoekoek

Uncommon summer migrant confined to wooded riverine valleys and forest patches on steep mountain slopes (e.g. Klerksvlei).

382 *Clamator jacobinus*
Jacobin Cuckoo
Bontnuwerjaarsvoël

Common summer migrant observed in wooded riverine valleys and *Leucosidea*-hillside bushes. Also observed during December 1992 in *Protea roupelliae* woodland at Honingkloof.

385 *Chrysococcyx klaas*
Klaas's Cuckoo
Meitjie

Uncommon summer migrant observed mostly in stands of exotic trees. Observed at Heuweltop (November 1994) and Honingkloof (January 1995).

386 *Chrysococcyx capruis*
Diederik Cuckoo
Diederikkie

Common summer migrant at the reedbeds at dams and marshy areas at Rietspruit.

392 *Tyto alba*
Barn Owl
Nonnetjie-uil

Uncommon resident. Possibly overlooked because of its nocturnal habits. Prefer areas near buildings and exotic trees.

395 *Asio capensis*
Marsh Owl
Vlei-uil

Probably a resident in the grassland areas of Korfshoek and Rietvlei. Mostly observed during the late afternoon or during the night (AB).

400 *Bubo capensis*
Cape Eagle Owl
Kaapse Ooruil

Uncommon visitor. Recorded only a few times (February and March) in exotic trees.

401 *Bubo africanus*
Spotted Eagle Owl
Gevlekte Ooruil

Common resident in wooded habitats and exotic tree clumps. A pair was observed during the day in *Populus* trees near Alma during February 1994.

411 *Apus apus*
European Swift
Europiese Windswael

Uncommon summer migrant observed on a few occasions along mountainous kranzes. Recorded only during February 1994.

412 *Apus barbatus*
Black Swift
Swartwindswael

Common summer migrant in mountainous areas with nest sites in kranzes.

415 *Apus caffer*
Whiterumped Swift
Witkruiswindswael

Vagrant. Recorded only on a few occasions during summer in mountainous areas.

416 *Apus horus*
Horus Swift
Horuswindswael

Vagrant. Recorded only once during February 1994 (QH).

417 *Apus affinis*
Little Swift
Klein Windswael

Uncommon. Probably a summer visitor as observations have been made mainly between November and March.

418 *Tachymarptis melba*
Alpine Swift
Witpenswindswael

Common summer visitor recorded from November to February. Possibly breeds along mountainous kranzes.

424 *Colius striatus*
Speckled Mousebird
Gevlekte Muisvoël

Common resident, seen readily in wooded localities such as hillside bushes, riverine valleys, small forest patches and around exotic trees in gardens.

429 *Megaceryle maxima*
Giant Kingfisher
Reuse Visvanger

Localised, uncommon resident, mostly associated with riverine areas and dams in QQNP.

431 *Alcedo cristata*
Malachite Kingfisher
Kuifkopvisvanger

A single bird was observed at Rietvlei on 28 February 1995 (AB).

451 *Upupa epops*
Hoopoe
Hoephoep

Common resident in woodland habitats such as riverine valleys, mountain hillside bushes, areas with exotic trees and in gardens.

465 *Tricholaema leucomelas*
Pied Barbet
Bonthoutkapper

Vagrant. Recorded only once during December 1993 in exotic trees at Honingkloof.

473 *Trachyphonus vaillantii*
Crested Barbet
Kuifkophoutkapper

Common resident in wooded riverine valleys, mountainous hillside bushes, areas with exotic trees and in gardens.

474 *Indicator indicator*
Greater Honeyguide
Grootheuningwyser

Common resident in areas with exotic trees along rivers and in gardens; also in wooded hillside bushes.

480 *Geocolaptes olivaceus*
Ground Woodpecker
Grondspeg

Common resident usually seen foraging in small groups in rocky hillsides and riverine valleys.

489 *Jynx ruficollis*
Redthroated Wryneck
Draaihals

Common resident in woodland habitats and stands of exotic trees. Breeding was observed in a dead *Eucalyptus* tree at Honingkloof (AB).

495 *Mirafra apiata*
Clapper Lark
Hoëveldklappertjie

Possible resident in grassland areas. Recorded during December 1994 at Rietspruit and Korfshoek where males were observed displaying.

500 *Mirafra curvirostris*
Longbilled Lark
Langbeklewerik

Uncommon resident mainly confined to high-lying mountainous areas above 1800 m.

506 *Chersomanes albofasciata*
Spikeheeled Lark
Vlaktelewerik

Localised resident. Small groups were seen during August and December 1994 in open, overgrazed patches (with small shrubs) in grassland at Rietspruit and Korfshoek.

507 *Calandrella cinerea*
Redcapped Lark
Rooikoplewerik

A single bird was seen near Heuweltop in a fallow land with short grass and low shrubs in November 1994 (AB).

518 *Hirundo rustica*
European Swallow
Europiese Swael

Common migrant, mainly in grassland areas.

520 *Hirundo albicularis*
Whitethroated Swallow
Witkeelswael

Uncommon migrant around the dams and rivers, but also near buildings. Probably nests under road culverts over streams.

526 *Hirundo cucullata*
Greater Striped Swallow
Grootstreepswael

Common migrant in grassland areas. Breeding was recorded under road culverts.

527 *Hirundo abyssinica*
Lesser Striped Swallow
Kleinstreepswael

Common migrant recorded between November and early April, mainly in high-lying mountainous areas. Localised in the QQNP, but frequently observed near Honingkloof.

529 *Hirundo fuligula*
Rock Martin
Kransswael

Common resident in mountainous areas.

534 *Riparia cincta*
Banded Martin
Gebande Oewerswael

Common summer visitor, mainly in montane grassland and moist grassland areas of QQNP.

541 *Dicrurus adsimilis*
Forktailed Drongo
Mikstertbyvanger

Common resident, seen mainly in wooded habitats in the QQNP. Also frequently observed in clumps of exotic trees and at staff houses.

547 *Corvus capensis*
Black Crow
Swart Kraai

Common resident in mountainous areas of the QQNP. Most frequently observed at Honingkloof and Eerstegeluk.

550 *Corvus albicollis*
Whitenecked Raven
Withalskraai

Uncommon resident in high, mountainous areas. A group of six individuals were observed at Avondrust during February 1995.

565 *Lioptilus nigricapillus*
Bush Blackcap
Rooibektiptol

Two birds were observed and heard in a wooded ravine on Qwaqwa Mountain on 14 January 1995 (AB). Another individual was seen in the Bosch-en-dal area during February 1995 (PG).

567 *Pycnonotus nigricans*
Redeyed Bulbul
Rooioogtiptol

Localised resident, seen mainly in hillside bushes near Eerstegeluk and Witkrans. Probably displace Blackeyed Bulbuls in lower north-western sections. Recorded on a few occasions in the gardens at Alma, Klerksvlei and Eerstegeluk.

568 *Pycnonotus barbatus*
Blackeyed Bulbul
Swartoogtiptol

Common resident, mostly in the eastern sections of QQNP. Sympatric with Redeyed Bulbuls at a few sites, e.g. Eerstegeluk. Prefers wooded areas mainly in valleys at higher altitudes and in *Leucosidea* hillside bushes.

577 *Turdus olivaceus*
Olive Thrush
Olyflyster

Common resident in riverine bush, stands of exotic trees (*Populus* spp.), along rivers and in gardens.

580 *Turdus litsitsirupa*
Groundscraper Thrush
Gevlekte Lyster

Visitors were observed in the gardens at Alma, Heuweltop and Honingkloof.

581 *Monticola rupestris*
Cape Rock Thrush
Kaapse Kliplyster

Common resident in rocky hillside habitats in higher mountainous areas. Also observed in wooded riverine valleys.

586 *Oenanthe monticola*
Mountain Chat
Bergwagter

Common resident in mountainous areas. Prefers rocky areas with some bush cover.

588 *Saxicola bifasciata*
Buffstreaked Chat
Bergklipwagter

Common resident on rocky hillsides and valley slopes. Also observed in *Protea roupelliae* woodland at higher altitudes. Breeding was noted at Wonderhoek, GGHNP (adjacent to the QQNP) when a nest with eggs were located during November 1991.

589 *Cercomela familiaris*
Familiar Chat
Gewone Spekvreter

Common resident in *Leucosidea* hillside bushes, areas near ravines, and also in gardens.

595 *Myrmecocichla formicivora*
Anteater Chat
Swartpiek

Abundant resident mostly in grassland habitats, areas along roads in the QQNP and mountain slopes with scattered bushes.

596 *Saxicola torquata*
Stonechat
Gewone Bontrokkie

Common resident in moist grassland habitats, in the marshy areas and on rocky hillsides.

601 *Cossypha caffra*
Cape Robin
Gewone Janfrederik

Common resident in wooded habitats such as along rivers, rocky hillside bushes and valleys, and also in gardens.

612 *Chaetops aurantius*
Orangebreasted Rockjumper
Oranjeborsberglyster

Localised resident on rocky hillside slopes and kranzes. Common at GGHNP and in adjacent sections of the Park above 2000m (Botha 1993). Observed only once at Silasberg, at the summit, on 15 June 1994 (MFB).

631 *Acrocephalus baeticatus*
African Marsh Warbler
Kleinrietsanger

Common resident along reedbeds in marshy vlei areas and around dams.

635 *Acrocephalus gracilirostris*
Cape Reed Warbler
Kaapse Rietsanger

Common resident along reedbeds in the marshy areas and dams.

643 *Phylloscopus trochilus*
Willow Warbler
Hofsanger

Uncommon summer migrant around gardens and in *Leucosidea*-bush, hillside bushes and riverine valleys.

661 *Sphenoeacus afer*
Grassbird
Grasvoël

Common resident. Prefers areas with long grass such as in valleys and dongas and also on mountain slopes with rank vegetation. Occurs throughout QQNP in suitable habitat.

664 *Cisticola juncidis*
Fantailed Cisticola
Landerykloppie

Visitor, recorded mostly during summer in grassland and montane grassland areas, and in old fallow lands near Honingkloof.

666 *Cisticola texrix*
Cloud Cisticola
Gevlekte Klopkloppie

Uncommon resident, mostly in grassland, but also montane grassland at high altitudes. Breeding was noted on 9 December 1994 at Rietspruit when a nest with eggs in grassland was located.

667 *Cisticola ayresii*
Ayres' Cisticola
Kleinste Klopkloppie

Uncommon resident, localised in montane grassland. Commonly recorded at Honingkloof.

668 *Cisticola brunnescens*
Palecrowned Cisticola
Bleekkopklopkloppie

A rare, but localised summer visitor associated with short, moist grassland around drainage lines. Recorded mainly at Rietvlei and in grasslands at Allandale, Gift and Mount Ararat.

670 *Cisticola lais*
Wailing Cisticola
Huilitinkinkie

Common resident on rocky mountain slopes with scattered bush. Prefers steep slopes at higher altitudes in the eastern parts of QQNP.

677 *Cisticola tinniens*
Levaillant's Cisticola
Vleitinkinkie

Common resident in vlei areas and in reedbeds surrounding dams and rivers.

681 *Cisticola fulvicapilla*
Neddicky
Neddikkie

Common resident in wooded localities such as riverine valleys, *Leucosidea* and other hillside bushes.

686 *Prinia hypoxantha*
Saffronbreasted Prinia
Drakensberglangstertjie

Common resident. Prefers *Leucosidea*-hillside shrub, bush clumps with long grass in

mountain gorges, and riverine valleys with bushes on hillsides (e.g. Klipspruit in Honingkloof).

689 *Muscicapa striata*
Spotted Flycatcher
Europiese Vlieëvanger

Common migrant. Recorded mostly in gardens at Alma, Honingkloof and Klerksvlei. Birds were also noted along rivercourses with *Salix* spp. in the Oldenburg and Klerksvlei areas (AB).

700 *Batis capensis*
Cape Batis
Kaapse Bosbontrokkie

Common resident, mainly in small forest patches on mountain slopes, wooded riverine valleys and in *Leucosidea*-bush clumps. Prefers areas with dense canopy cover.

706 *Stenostira scita*
Fairy Flycatcher
Feevlieëvanger

Common winter visitor to the QQNP, observed during August 1994. Prefers hillside bushes and gardens in the low-lying areas, especially near Eerstegeeluk.

710 *Terpsiphone viridis*
Paradise Flycatcher
Paradysvlieëvanger

Common summer migrant in gardens and in *Populus* trees along the rivers.

713 *Motacilla capensis*
Cape Wagtail
Gewone Kwikkie

Common resident around dams, marshy areas and in gardens.

716 *Anthus cinnamomeus*
Grassveld Pipit
Gewone Koester

Uncommon visitor to lower-lying grassland areas.

717 *Anthus similis*
Longbilled Pipit
Nicholsonse Koester

Uncommon resident. Prefers montane grassland areas with rocky substrates. Probably overlooked; individuals were ringed at Avondrust during December 1994 and February 1995 amongst *Protea*-trees on a grassy hillside.

718 *Anthus leucophrys*
Plainbacked Pipit
Donkerkoester

Common resident in montane grassland areas. Prefers rocky hillsides and *Protea* savanna. Breeding was noted during November 1993.

901 *Anthus hoeschi*
Mountain Pipit
Bergkoester

Rare summer migrant to the QQNP, confined to areas above 2000 m. Observed during February 1994 in the Tossline section near the Lesotho border. Prefers short, montane grassland on steep slopes.

721 *Anthus crenatus*
Rock Pipit
Klipkoester

Uncommon resident on grassy mountain slopes and rocky hillsides especially areas above 1800 m.

725 *Hemimacronyx chloris*
Yellowbreasted Pipit
Geelborskoester

A rare species which is localised in short, montane grassland (above 2000 m) during summer. Observed during February 1994 at Tossline near the Lesotho border and between December 1994 and February 1995 in the north-eastern section of Beginsel. This altitudinal migrant is also recorded in the high-lying areas of GGHNP (Botha 1993).

727 *Macronyx capensis*
Orangethroated Longclaw
Oranjekeelkalkoentjie

Common resident in grassland and high montane grassland areas of the QQNP. Breeding was noted during November 1993.

732 *Lanius collaris*
Fiscal Shrike
Fiskaallaksman

Common resident at gardens around buildings, but also at wooded localities in lower-lying areas. Breeding was recorded at Eerstegeeluk.

736 *Laniarius ferrugineus*
Southern Boubou
Suidelike Waterfiskaal

Uncommon resident of thick bush along cliffs at Mount Ararat and Gegund and also in *Leucosidea*-woodland.

746 *Telophorus zeylonus*
Bokmakierie

Common resident in woodland habitats especially around gardens, *Leucosidea*-woodland, and hillside bushes at lower-lying areas. Breeding was noted at Honingkloof and on the slopes of Silasberg (nest with eggs) during December 1994.

758 *Acridotheres tristis*
Indian Myna
Indiese Spreeu

Common resident, mainly around gardens and buildings at Klerksvlei, Alma and Eerstegeeluk. Localised, but absent from natural vegetation. Breeding suspected.

759 *Spreo bicolor*
Pied Starling
Witgatspreeu

Common resident of rocky hillsides with scattered bushes, but also found around buildings and in exotic vegetation.

769 *Onychognathus morio*
Redwinged Starling
Roovlerkspreeu

Common resident, especially in gardens, but also on rocky mountain slopes. Large flocks observed mainly during winter.

774 *Promerops gurneyi*
Gurney's Sugarbird
Rooborssuikervoël

Common resident, but localised in *Protea roupelliae* woodland. Occurs only at the Honingkloof and Hewelkop areas, the summit of Qwaqwa Mountain and in a small *Protea roupelliae* clump at Avondrust. At GGHP, they also occur in mixed *P. roupelliae*/*P. caffra* woodland in the Wonderhoek area (adjacent to QQNP); also during November 1990 in *P. caffra* on the farm Diepkloof (MFB). Breeding was confirmed as juvenile birds and females with brood patches were captured during December 1992 and 1994.

775 *Nectarinia famosa*
Malachite Sunbird
Jangroentjie

Common resident in *Protea*-veld (mainly *P. roupelliae*) but also along mountainous hillsides with flowering species such as *Watsonia* spp., *Kniphofia* spp. and other flowering plants. Breeding recorded between November and February, with nests in *Protea* trees and shrubs along mountain streams or on hillsides. Absent at the higher altitudes during the winter, when they disperse to low-lying areas (De Swardt 1995). During August 1994 they were observed foraging on *Aloe granidentata* which were in flower in the hillsides at Eerstegeluk.

785 *Nectarinia afra*
Greater Doublecollared Sunbird
Groot-rooibandsuikerbekkie

Uncommon resident in *Protea*-veld, but also found in hillside bushes and mountainous valleys with forest flowering species such as *Greyia radlkoferi* and *Halleria lucida*.

792 *Nectarinia amethystina*
Black Sunbird
Swart Suikerbekkie

Summer visitor, recorded during February 1994 in gardens. Two immature birds were captured and ringed at the *Protea roupelliae* clump at Avondrust during February 1995.

796 *Zosterops pallidus*
Cape White-eye
Kaapse Glasogie

Common resident in gardens, exotic vegetation, *Leucosidea* and other hillside shrubs, and in *Protea*-veld.

801 *Passer domesticus*
House Sparrow
Huisbossie

Common resident of gardens around staff houses, offices and small settlements in the QQNP.

803 *Passer melanurus*
Cape Sparrow
Gewone Mossie

Uncommon resident, mainly around gardens and near exotic trees.

804 *Passer diffusus*
Southern Greyheaded Sparrow
Gryskopmossie

Common resident in gardens at staff houses (e.g. Avondrust) and exotic trees along Rietspruit.

813 *Ploceus capensis*
Cape Weaver
Kaapse Wewer

Common resident observed along rivers and drainage lines and exotic trees (*Salix* along rivers) and in gardens. Small breeding colonies were observed at Korfshoek during December 1994 and at the Honingkloof staff house.

814 *Ploceus velatus*
Masked Weaver
Swartkeelgeelvink

Resident. Common around dams and staff houses, breeding was recorded in *Salix*-trees at Honingkloof and Rietvlei (AB).

821 *Quelea quelea*
Redbilled Quelea
Rooibekkelele

Visitor. A few early winter records during 1994 (QH). Found mainly around marshy areas and grassland. A small flock was observed in *Protea roupelliae* woodland at Honingkloof during February 1995.

- 824 *Euplectes orix*
Red Bishop
Rooivink
- Common resident. Breed in *Phragmites* reedbeds in the marshy areas at Rietspruit and Rietvlei.
- 826 *Euplectes afer*
Golden Bishop
Goudgeelvink
- Uncommon resident. Observed mainly in marshy areas at Rietspruit and near Heuweltop.
- 827 *Euplectes capensis*
Yellowrumped Widow
Kaapse Flap
- Resident. Common in *Phragmites* reedbeds around Rietspruit, but also on marshy, grassy mountain slopes (recorded at the summit of Qwaqwa Mountain) and in moist grassland.
- 828 *Euplectes axillaris*
Redshouldered Widow
Kortstertflap
- Common resident in marshy areas in grassland. Confined to moister, high-lying grassland areas.
- 831 *Euplectes ardens*
Redcollared Widow
Rooikeelflap
- Common resident, found mainly in montane grassland with rocky areas. Prefers also hillside slopes with rank grass.
- 832 *Euplectes progne*
Longtailed Widow
Langstertflap
- Resident. Common in low-lying grassland, near the marshy areas of Rietvlei; also found in montane grassland.
- 846 *Estrilda astrild*
Common Waxbill
Rooibeksysie
- Uncommon resident, found mainly around marshy areas, dams and rivers in QQNP.
- 850 *Estrilda melanotis*
Swee Waxbill
Suidelike Swie
- Uncommon resident associated with thick bush on mountain slopes and riverine valleys. Also observed at the edges of gardens, e.g. at Eerstegeluk.
- 852 *Ortygospiza atricollis*
Quail Finch
Gewone Kwartelvinkie
- Common resident in grassland habitats, mainly around the edges of dams and areas with short marshy grass.
- 860 *Vidua macroura*
Pintailed Whydah
Koningrooibekkie
- Common resident in grassland and short marshy grass around dams, also found in fallow fields.
- 870 *Serinus atrogularis*
Blackthroated Canary
Bergkanarie
- Resident. Small flocks are frequently observed in areas with short grass and in fallow lands, mostly in the lower-lying areas.
- 872 *Serinus canicollis*
Cape Canary
Kaapse Kanarie
- Resident. Common on scrubby hillsides, in montane and low-lying grasslands and in *Protea*-veld on high, mountainous areas.
- 881 *Serinus gularis*
Streakyheaded Canary
Streepkopkanarie
- Common resident in *Protea roupelliae* woodland, but also in mountainous bush and in riverine valleys with scattered shrubs. Breeding was observed at Honingkloof with a nest in a *Protea roupelliae* tree during November 1994.
- 884 *Emberiza flaviventris*
Goldenbreasted Bunting
Rooirugstreepkoppie

Common resident in *Protea roupelliae* woodland on mountain slopes, *Leucosidea* shrub and exotic vegetation along rivers.

885 *Emberiza capensis*
Cape Bunting
Roovlerkstreekoppie

Common resident on rocky mountain slopes and wooded riverine valleys and gorges.

886 *Emberiza tahapisi*
Rock Bunting
Klipstreekoppie

Common resident in montane grassland areas with rocky outcrops, and in riverine valleys. Prefers more open shrub than the Cape Bunting.

Discussion

A total of 179 species was recorded during the survey which compares well with the current 184 species recorded from the adjacent GGHNP (Earlé & Lawson 1988; Botha 1993). Species such as Palecrowned Cisticolas, Longbilled and Plainbacked Pipits and Quail Finches were commonly recorded at QQNP, but were not listed for GGHNP. These species possibly occur at GGHNP, but have probably been overlooked previously. Other species such as Buffy Pipit, Bearded Vulture and Mocking Chat have not been recorded from QQNP (although their presence is considered likely) as they are on the check list of GGHNP (Botha 1993).

Most species recorded at QQNP preferred particular vegetation types where they were localised. Of the total species recorded, 45 (25,1%) were mostly associated with grassland habitats, 32 (17,9%) to the mountainous rocky hillsides and 40 species (22,3%) associated with woodland habitats in the QQNP (Table 1). The two rivers viz. Rietspruit and Kleinspruit, with its associated *Phragmites* reedbeds, dams and vlei areas were preferred by 45 (25,1%) water associated species. Also, most of the species recorded at QQNP occur only marginally in the eastern part of the Free State, such as Palecrowned

Cisticola, Buffstreaked Chat and Redshouldered Widow (Earlé & Grobler 1987; *pers. obs.*). The grassland and montane grassland areas have the greatest species diversity (see Table 1), and species such as Bald Ibis, Greywing and Redwing Francolins, lark, cisticola and pipit species give particular preference to these habitats. The dams with *Phragmites* reedbeds and marshes, are usually in the grassland at the lower lying areas, which are preferred by waterfowl (Little Bittern, African Rail and other) and several species of widows (Yellowrumped, Golden and Redcollared).

In the mountainous areas of QQNP which are dominated by *Protea* savanna, *Leucosidea* shrub and along the rocky hillsides, slopes and valleys, several localised species occur in these habitats. Gurney's Sugarbirds, Malachite Sunbirds and Streakyheaded Canaries were associated with isolated *Protea roupelliae* clumps (see also De Swardt 1993b). Raptors such as Black Eagle, Jackal Buzzard, Eastern Redfooted Kestrel and swifts (Alpine and Black), Buffstreaked Chat, Orangebreasted Rockjumper and Mountain Pipit are mainly confined to the mountainous areas of the eastern Free State and were localised at QQNP. Along the dense bush in isolated ravines and cliffs, species associated with small forest patches such as Black Cuckoo, Bush Blackcap, Saffronbreasted Prinia, Cape Batis, Southern Boubou and Sweet Waxbill were localised.

The management of these habitats should take bird diversity into consideration, especially considering the conservation of rare and localised species discussed above. As the largest percentage of bird species recorded at QQNP are mainly grassland and mountainous species the conservation of these species and their habitat in this new conservation area are a priority. Accidental fires which are a frequent occurrence during the winter months when large areas of grassland (especially *P. roupelliae* woodland) are destroyed must also be prevented. The correct application of the burning season is necessary which are mainly between early win-

ter and early spring (May - September), and must be rotated annually (Van Wilgen *et al.* 1990). Fire breaks should be prepared, especially along the eastern border adjacent to urban areas of Phuthaditjhaba, Hlatseng and Mononthsa where most of these accidental fires originate. The control and management of fires is important and careful monitoring of fires in grassland is necessary as nectarivores as well as other birds are dependent on grassland habitats which are dominated by Proteaceae (De Swardt 1993b).

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