

THE NYIKA BIRD PROJECT

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Introduction

The Nyika Bird Project (NBP) was a semi-autonomous group under the Malawi 1997 Expedition to the Northern Extension of the Nyika National Park in northern Malawi. The expedition took place between 10 March 1997 and 16 April 1997. The expedition was a private undertaking by Mr C P Overton of Welbourn, Lincolnshire in England, who had participated as a student in the Wye College Expedition to the same area in 1972. The aim of the expedition was to survey the biodiversity in the study area, which was declared a part of the Nyika National Park in 1976.

The NBP group consisted of Lyn Wells (LW), Andy Mitchell (AM) and JH. LW and AM are both experienced A-license ringers, having worked for many years in the UK and also on projects in Cuba. JH is one of only two active ringers in Malawi. Originally, Dr Robin Little of UCT and Martin Nhlane of Museums of Malawi were to have participated, but due to other commitments had to withdraw at a late stage in the planning. No substitutes were found.

Study Area

The study area was the Northern Extension of the Nyika National Park. The park covers the Nyika Plateau, an area of rolling montane grassland interspersed with pockets of montane evergreen forest, at an average altitude of 2 200 m. The Northern Extension covers the very edge of the plateau, which then drops steeply into the Mondwe and Chipome Valleys to the northwest, and the Sawi Valley to the northeast. Between these, forming a partial rain barrier, the Kawozya Ridge runs almost due north from Nganda Peak to Kawozya and Mpande Peaks. In the valleys, the altitude is generally between 1 000 m and 1 500 m, and the vegetation is predominantly *Brachystegia* woodland. The entire study area is within quarter degree square 1033B4. The

expedition base camp was on the western side of Nganda Peak, at an altitude of 2 300 m.

Objectives

Prior to the expedition, the following scientific objectives were drawn up

- To compile a species list of Palearctic migrants moving through and over Nyika and assess the abundance of each species.
- To compile a species list of the Afrotropical birds in the study area and assess the abundance in each habitat type.
- To assess bird populations using Nyika in terms of national and international significance.
- To assess the status and abundance of Red Data Book species in the study area.
- To produce recommendations on the commercial viability and sustainability of bird-watching in the area.
- To produce guidelines for ongoing monitoring of the area.
- To discover the breeding and wintering areas of birds moving through the Nyika Plateau.

Methods

A total of five working periods each of approximately six days duration were carried out, each at a different site. Initially, the following methodologies were proposed :

Mistnetting: at each working site mistnets to be set to cover as many as possible of the local micro-habitats within a radius of maximum 500 m of the ringing station. Full biometrics to be taken on all birds. Nets to be open from dawn to mid-morning, and from mid-afternoon to dusk.

Fixed radius point counts: Point counts to be carried out morning and evening, coinciding with mistnetting sessions. At each point all birds within a 25 m radius to be identified and recorded.

Raptor work: Raptor-watches of predetermined length to be carried out every other day. Particular interest has been shown in the extent of melanism in Augur Buzzard *Buteo augur*, and all sightings of this species will be recorded. Redbreasted Sparrowhawk *Accipiter rufiventris* is fairly common on the Nyika Plateau, yet no breeding data is available for the area – attempts at nest locating to be carried out.

Red Data Book Species: As much data as possible to be collected on the Red Data Book species occurring in the study area and submitted in a separate report to BirdLife International.

Due to the loss of Dr Little and Mr Nhlane, the above methodologies had to be modified considerably. It was decided to concentrate on the ringing work as it was expected to give the best and most documentable results. In addition, informal survey walks were undertaken, and one work period was dedicated to raptor-watching.

The five work periods were distributed with two ringing periods at high altitude (above 2 000 m) and two at medium altitude (between 1 100 m and 1 500 m), and one raptor-spotting period at high altitude on the very edge of the plateau. One high altitude and one medium altitude period were worked on either side of the rain barrier, thus allowing for comparison between higher and lower rainfall areas.

Results

Species, and numbers of each, ringed can be found in Appendix II [*Selected list. Ed.*]

Site One: Nganda

10°27'S, 33°51'E, altitude 2 300 m.

Adjacent to the Expedition Base Camp, this site was worked from 11 March to 17 March. A total of 10 mistnets were deployed in and around a small evergreen montane forest patch, through which a stream ran south to north. To the east of the forest patch the ground was almost flat, while to the west a steep slope rose through the forest patch and on up at a slightly gentler slope.

A total of 108 birds of 32 species were ringed. The first two days of ringing claimed the ma-

jority of the birds trapped, after which it was found that some, species became net-wary. This applied in particular to the various *Nectarinia* and *Cisticola* species, while Mountain Greenbul *Andropadus tephrolaemus* and Bar-throated Apalis *Apalis thoracica* were retrapped continuously.

Site Two: Middle Chipome Valley

10°19'S, 33°49'E, altitude 1 410 m.

This site consisted of open canopy *Brachystegia* woodland alongside a major river. The river was bordered by a narrow strip of tall riparian growth. It was worked between 18 to 23 March. In total, 11 nets were deployed to cover the various habitats, including two across the Chipome River. Only the south bank was worked, to maintain ease of access. Some 38 birds, representing only 18 species, were trapped. Again the first days were more productive than the later days. Proportionately fewer birds were retrapped at this site. The birds trapped were predominantly typical of *Brachystegia* woodland, with only a couple of thicket species and one water species.

Site Three: Mondwe Lookout

10°25'S, 33°50'E, altitude 2 300 m.

This site was dedicated to raptor-watching, though one day, 28 March, was used for ringing work at a sub-site one minute of longitude west of the lookout. This was a typical montane dambo with patches of forest on the edge of the swampy centre. Only seven birds of five species were trapped, in a single net. This site was actually within the old boundary of the Nyika National Park, by a few hundred metres.

Site Four: Savi-Guwu Confluence

10°18'S, 33°54'E, altitude 1 150 m.

This site was worked between 1 and 5 April. It consisted of a narrow belt of riverine forest around the confluence of the Savi and Guwu Rivers, with tall, open *Brachystegia* woodland on the surrounding slopes. A total of 10 nets were used, including one across each river.

Only 20 birds were trapped of 12 species, a surprisingly low number given the apparent suitability of the habitat. As expected, the birds trapped were a mixture of forest and woodland species.

The most interesting capture here was of two Olivebreasted Mountain Bulbuls, well below the normal range of this species.

Site Five : West Muzengapakweru

10°26'S, 33°33'E, altitude 2 200 m.

This site was worked between 10 and 14 April. It comprised a medium-sized patch of montane evergreen forest and the surrounding grassland and montane dambo on the lower side of the forest. Nine nets were deployed, from the interior of the forest to the dambo floor.

A total of 55 birds were trapped of 24 species. As expected, a variety of forest, forest edge, grassland and dambo species were trapped. A tape lure was tried for some of the forest species, without success. Interestingly enough, Palearctic migrants were still present.

Discussion

The members of the NBP had no say in the choice of time of year for the expedition, though it had been suggested by several of the advisors to the NBP, as well as by JH, that the time of year chosen for the expedition was the least optimal for ornithological work. However, for other groups in the team it was the optimal time, and obviously a compromise was settled on.

As can be seen the results were not particularly good, and there is certainly scope for a lot of further work in the area – at a more suitable time of year, such as from October to December inclusive. Another indication that further work may prove worthwhile is that several species were recorded outside their normal range limitations as known within Malawi. In particular, this relates to the two Mountain Greenbuls trapped at Site Four. This species has previously been recorded even lower, on the shores of Lake Malawi during the cold season, and it is possible that the Sawi River is a migration route.

The absence or very limited occurrence of several species that should be common at particularly the mid-altitude sites is also interesting.

Conversations with the expedition's botanist and entomologist respectively revealed that also within their fields the species diversity was not as extensive as had been expected. No clear indication of why these lower than expected diversities were encountered were forthcoming, though this might have been alleviated by the presence of a soil geologist on the expedition. The Kawozya Ridge rain shadow was expected to have an influence on the diversity at Site Two in comparison to Site Four, but the results were too poor to allow any conclusions on this.

Conclusion

Generally the results were insufficient to make any assessments towards the revised objectives of the NBP, partially due to the loss of personnel but primarily due to the time of year. The weather encountered at the high altitude sites was to a large extent wet and windy, thus reducing the time the nets could be worked.

Overall, 17 species of Palearctic migrant were recorded, with a further 132 Afrotropical species also recorded within the study area. The Red Data Book species Pallid Harrier *Circus macrourus*, Blue Swallow *Hirundo atrocaerulea* and Churring Cisticola *Cisticola njombe* were recorded, and full details have been submitted to BirdLife International.

From an eco-tourism point of view, birdwatching by itself does not appear viable in the area. Combined with other naturalist interests, however, the potential will probably be viable. Following discussions with National Park staff during the final days of the expedition, a tentative programme for continued monitoring of the area has been implemented.

The Nyika Bird Project wishes to thank SAFRING for the supply of rings on a 'use or return' basis. Thanks are also due to Dr M Dyer, Messrs R J Dowsett, R D Medland and D P Critchlow for advice during the planning stages, and to the Wildlife Society of Malawi Blantyre Branch for funding of stationery, guy-strings and torch batteries.

APPENDIX I

Species extra-limital to the normal SAFRING area

The following species, extra-limital to the normal SAFRING area and not previously reported by ringers active in such areas, were trapped:

Species	Ring prefix	Size
Blackbacked Barbet <i>Lybius minor</i>	CV	3,3 mm
Whiteheaded Saw-wing Swallow <i>Psalidoprocne albiceps</i>	W	1,8 mm
Mountain Babbler <i>Alcippe abyssinica</i>	AE	2,3 mm
Oliveflanked Robin <i>Cossypha anomala</i>	F	2,8 mm
Longtailed Forest Scrub Warbler <i>Bradypterus cinnamomeus</i>	AE	2,3 mm
Yellow Mountain Warbler <i>Chloropeta similis</i>	AE	2,3 mm
Mountain Cisticola <i>Cisticola hunteri</i>	F/BD	2,8/3,0 mm
Churring Cisticola <i>Cisticola njombe</i>	W/AE	1,8/2,3 mm
Abyssinian Slaty Flycatcher <i>Melaenornis chocolatinus</i>	F/BD	2,8/3,0 mm
Fülleborn's Black Boubou <i>Laniarius fuelleborni</i>	CV	3,3 mm
Baglafaecht Weaver <i>Ploceus baglafaecht</i>	BC	3,0 mm
Streaky Canary <i>Serinus striolatus</i>	AE	2,3 mm
Oriole Finch <i>Limurgus olivaceus</i>	AE	2,3 mm

APPENDIX II

Selections from The Systematic Bird List

Common names as per Roberts' *birds of southern Africa* (Maclean 1984).

Tambourine Dove *Turtur tympanistra*

A single juvenile male was mistnetted at Site 4, no other evidence of this species was recorded. The sex was determined from the emergent adult facial markings.

Jacobin Cuckoo *Clamatar jacobinus*

Two birds of this species were mistnetted at Site 1 on 11/3 and 12/3 respectively, evidently on northward migration. Both birds were greyish white below, indicating that they were possibly of the race *C. j. serratus* from south of the Zambezi, which are far from common this far north. It was at first assumed that both birds were juveniles due to the heavy moult observed in both, but the bill colour was black rather than pale yellowish. Only one bird was measured, as the other was trapped at dusk and there was insufficient light for obtaining mensural data.

Klaas' Cuckoo *Chrysococcyx klaas*

A single sub-adult male of this species was mistnetted at Site 2 on 20/3; the species was not heard at any time. The age of the bird was determined by the lack of green on the throat and upper breast. The third secondary on the right wing had been retained from the juvenile plumage.

Mottled Swift *Apus equatorialis*

A single bird was collected from the ground after having been attracted to the lights of the expedition entomologist on the night of 7/4. From the small size of the bird, it was assumed to be a female.

Speckled Mousebird *Colius striatus*

Common around Base Camp, with up to 10 birds seen, also 14 at Site 3. A total of 10 birds were mistnetted, sexing from mensural data is not possible.

Giant Kingfisher *Ceryle maxima*

Three birds were mistnetted at Site 2 between 19/3 and 21/3. The first was a juvenile bird, the other two adult males. The species is listed as scarce in Nyika National Park, however, subse-

quent records, including the three recorded here, would indicate that along the perennial streams at lower altitudes in the park the bird is merely uncommon. It was found necessary to place the ring above the tibio-tarsal joint on all birds, as the tarsi were too short to accommodate the rings.

Pygmy Kingfisher *Ispidina picta*

A single sub-adult bird was mistnetted at Site 2, in a cross-river net. The age was determined by the remnant black coloration at the root of the beak. The bird was possibly using the Chipome River as a migration route to the northwest.

Blackbacked Barbet *Lybius minor*.

Three adults, two of which were females and the third unsexed, were trapped on 19/3 at Site 2, and a further sub-adult possible male individual was trapped on 22/3. Wing lengths fell into two groups, the two female birds measuring 95 mm and the other two birds 90 mm and 91 mm respectively; this could be an indication of sexual size dimorphism.

Greater Honeyguide *Indicator indicator*

A juvenile bird was trapped on 12/3 at Site 1, this is possibly an altitudinal record in Malawi for this species. At Site 2 a bird was present around camp from 19/3 to 21/3, attempting to attract our attention, and on several occasions it was identified as a male bird. En route to Site 4 the species was heard and seen almost all day, both days, and at Site 4 it was recorded daily, with up to three birds.

Lesser Honeyguide *Indicator minor*

A single juvenile bird was trapped at Site 1 on 11/3. Again, this is possibly an altitudinal record for the species in Malawi.

Little Spotted Woodpecker *Campethera calliautii*

A female bird was seen near Site 2 on 21/3, possibly in company with a pair of the next species. A juvenile male was trapped at Site 4 on 4/4.

Blue Swallow *Hirundo atrocaerulea*

Recorded in numbers at Sites 1 and 3, one sighting of one bird at Site 4. Maximum daily count was 60 at Site 1 on 16/3. Daily totals tended to fall towards the end of the project, and it was assumed that migration had culminated. Four birds were trapped at Site 1.

Whiteheaded Saw-wing Swallow *Psalidoprocne albiceps*

A juvenile bird was trapped at Site 1 on 13/3. The species was recorded sporadically at Site 1 and 2, maximum of four birds.

Mountain Babbler *Alcippe abyssinica*

Three birds were trapped on 11/4 at Site 5, one inside a forest patch and the other two on the edge of another patch.

Black Cuckoo Shrike *Campephaga flava*

A female was trapped on 20/3, and was seen together with a male bird on the two following days.

Blackeyed Bulbul *Pycnonotus barbatus*

Recorded on all but six days of the project. Only one bird was trapped.

Little Greenbul *Pycnonotus virens*

Recorded from 2/4 to 5/4 at Site 4 and en route from there to Base Camp. Three birds were trapped, two on 2/4 and one on 3/4.

Mountain Greenbul *Andropadus tephrolaemus*

Recorded daily at Sites 1, 3 and 5. Also two single records, on 4/4 and 5/4 respectively, at Site 4. The altitude here, ca. 1 150 m, is below the normal range of this species. However, it has been recorded along the shore of Lake Malawi (alt. 474 m) during austral winter months, and it is assumed that the Sawi River is an altitudinal migration route. A total of 16 birds were trapped. Sexing from mensural data should be possible.

Stripecheeked Greenbul *Pycnonotus milanjensis*

A single bird was trapped on 4/4 at Site 4. This was a surprise, as the riverine vegetation here was not considered dense enough for this species. It was possibly on migration from a higher altitude.

Grey-olive Greenbul *Phyllastrephus cerviniventris*

Two birds were trapped at Site 2 on 20/3, the species was recorded each of the following two days at this site. Another two were trapped at Site 4 on 3/4.

Stonechat *Saxicola torquata*

Common in the montane grassland, and recorded at all high altitude Sites. A single juvenile bird was ringed at Site 1. These birds are of the African race *S. t. stonei*.

Familin Chat *Cercomela familiaris*

A single bird was trapped at Site 2 on 20/3. Surprisingly, the species was not recorded on ascents and descents from the plateau where otherwise suitable habitat was found.

Oliveflanked Robin *Cossypha anomala*

One bird was trapped on 10/4 at Site 5, another two were seen here on 12/4, and the species was heard on both of the following days.

Starred Robin *Pogonocichla stellata*

Two birds were recorded at Site 1, at Site 5 a total of five birds were recorded. All but one were ringed.

Cape Robin *Cossypha caffra*

Recorded at all high altitude sites. Two birds were ringed, one at each of Site 1 and 5.

Heuglin's Robin *Cossypha heuglini*

Recorded daily, mostly by call, at both low altitude sites. Two birds were ringed at each of these sites.

Longtailed Forest Scrub Warbler *Bradypterus cinnamomeus*

Single bird trapped at Site 5 on 13/4. Identification slightly doubtful as the bird had just shed its tail.

Yellow Mountain Warbler *Chloropeta similis*

Three birds were trapped at Site 1 on 12/3, and one on 13/4 at Site 5.

Willow Warbler *Phylloscopus trochilus*

Recorded sporadically at all but Site 4, maximum of five birds on 13/3. A total of 12 birds were recorded, of which three were ringed. More birds of this species had been expected.

Tawnyflanked Prinia *Prinia subflava*

Recorded at both low altitude sites, but in surprisingly sparse numbers for this common bird. A total of five birds were ringed.

Barthroated Apalis *Apalis thoracica*

Recorded daily at all high altitude sites, often recognised by the call. A total of seven birds were ringed, of the race *A. t. youngi*.

Yellowbreasted Apalis *Apalis flavida*

Only five birds recorded at Site 2; two of these were ringed. A surprising absence of this species at Site 4.

Mountain Cisticola *Cisticola hunteri*

Very common at all high altitude sites. Five birds were ringed at Site 1.

Wailing Cisticola *Cisticola lais*

Two birds with very heavy fat deposits (fat score = 4) were trapped at Site 1 in the evening of 13/3. This is marginally above the normal altitude for this species in Malawi, and there does not appear to be any previous evidence of migratory behaviour. As such, this record is of considerable interest.

Churring Cisticola *Cisticola njombe*

This Red Data Book species was common at all high altitude sites, perhaps less so at Site 5. A total of 12 birds were ringed.

Collared Flycatcher *Muscicapa albicollis*

An adult female bird was trapped at Site 2 on 20/3. This species is much rarer in Malawi than the previous species. The Nyika is a known wintering locality for both species, and a greater disparity in records had thus been expected.

Abyssinian Slaty Flycatcher *Melaenornis chocolatinus*

We had three records of this species at Site 1, the first of which was trapped. A single bird was recorded at Site 3. At Site 5 we had two records of two birds, of which one of the first pair were trapped. This was clearly a pair, as the other bird kept near the trapped bird and was very excited.

Cape Batis *Batis capensis*

Two sub-adult birds were trapped at Site 1 on 13/3. Singles were sighted or heard until 18/3. At Site 3, the species was recorded once, and also once en route back to Base Camp from there. The species was recorded daily at Site 5, with a group of six birds on 12/4 being maximum; these birds were behaving in a very excited manner at mid-canopy height, possibly in response to a predator such as a snake.

Chinspot Batis *Batis molitor*

This species was recorded on all but one day at Site 2, though never more than two birds on any date. A single male bird was trapped on 20/3. Surprisingly, the species was absent from suitable habitat at Site 4, though it was heard en route from there to Base Camp.

Whitetailed Flycatcher *Trochocercus albonotatus*

Recorded from 10/4 to 13/4 at Site 5, a single bird being trapped on 11/4. This was the only site with habitat suitable for this species.

Puffback *Dryoscopus cubla*

Heard or seen daily at Site 2, though never more than two birds. A male was trapped on 20/3. Recorded only twice at Site 4, this scarcity very surprising for one of the commonest of the African shrikes.

Blackcrowned Tchagra *Tchagra senegala*

Far more common than the previous species, thus recorded daily by call with up to three birds from 18/3 to 23/3 at Site 2, and common at Site 4. One bird was trapped at this latter site. Also recorded daily by call at Site 3, the call carrying up the steep slopes from the *Protea* scrub some distance below.

Tropical Boubou *Laniarius aethiopicus*

Recorded virtually daily at all sites except Sites 3 and 4, where surprisingly absent. A single bird was trapped at Site 1 on 13/3.

Fülleborn's Black Boubou *Laniarius fülleborni*

Recorded daily at Site 1, where the characteristic call was often heard. Two female birds were trapped on 12/3 and 13/3 respectively. Also recorded on all but one date at Site 5.

Olive Sunbird *Nectarinia olivacea*

Recorded on three dates at Site 4, with two birds trapped on 4/4.

Black Sunbird *Nectarinia amethystina*

Recorded daily at Site 1, with one male trapped on 19/3. Up to three birds were seen on 21/3. Recorded en route to Site 4, and on three dates at this site.

Greater Doublecollared Sunbird *Nectarinia afra*

The commonest sunbird recorded by the project. Seen daily at Site 1, with a total of nine birds trapped at this site. At Site 3 recorded on three dates, with three trapped there. Recorded on three dates at Site 5.

Eastern Doublecollared Sunbird *Nectarinia mediocris*

Also a common sunbird, recorded daily at Site 1 where nine birds were trapped. Only one record, totalling five birds, at Site 3, of which 1 bird was trapped. At Site 5 more common than *N. afra*, and eight birds were trapped here.

Malachite Sunbird *Nectarinia famosa*

Recorded on 4 dates at Site 1, with one male bird trapped. Seen daily at Site 3 with up to five birds, but surprisingly not recorded at Site 5. If the pectoral tufts were not visible, the bird was ascribed to this species rather than the more uncommon *N. johnstoni*. This latter species was not recorded at all.

Bronze Sunbird *Nectarinia kilimensis*

Recorded daily at Site 1, with six birds trapped. Five birds seen at Site 3 on 28/3, and recorded on three dates at Site 5.

Yellow White-eye *Zosterops senegalensis*

Recorded on four dates at Site 1, with up to 11 birds on 15/3. Two birds were trapped at this site. A single record from Site 3 on 28/3, and recorded daily at Site 5. Four birds were ringed at this Site.

Baglafaecht Weaver *Ploceus baglafaecht*

Recorded on three dates at Site 1, with two birds trapped on 11/3. A single bird trapped at Site 3 on 28/3, and a single seen at Site 5 on 13/4.

Green Twinspot *Mandingoa nitidula*

Four birds recorded at Site 4 on 5/4, of which two were trapped.

Redfaced Crimsonwing *Cryptospiza reichenovii*

A male bird was trapped at Site 5 on 10/4, and a juvenile bird likewise trapped on 13/3. Curiously absent from Site 1.

Bluebilled Firefinch *Laganosticta rubricata*

Single birds recorded at Site 1 from 11/3 to 13/3, of which Two were trapped. Two seen at Base Camp on 8/4. Recorded on four dates at Site 2, with six birds trapped. Also recorded on four dates at Site 3. Daily records at Site 5, with six birds ringed. Curiously absent from Site 4.

East African Swee *Estrilda quartinia*

Recorded on three dates at Site 1, with one bird trapped. Recorded on three dates at Site 5, with two birds trapped.

Common Waxbill *Estrilda atrild*

A pair seen on 8/4 at Base Camp. Two birds seen at Site 5 on 11/4, of which one was trapped.

Cabanis's Bunting *Emberiza cabanisi*

A juvenile bird was trapped at Site 2 on 19/3, and an adult female was trapped at Site 4 on 5/4. Surprisingly scarce in otherwise suitable habitat.

African Citril Finch *Serinus citrinelloides*

Recorded sparsely at Site 1, where two birds trapped. Recorded on four dates at Site 2, once en route to Site 4. Daily at Site 5, where two birds were trapped.

Streaky Canary *Serinus striolatus*

Recorded on three dates at Site 1, where one bird was trapped. Recorded once at Site 3, with one bird trapped. Recorded on two dates at Site 5, where one bird was trapped.

Oriole Finch *Linurgus olivaceus*

A single juvenile trapped at Site 5 on 11/4.
