

A new Zambian list: update & overhaul

Latest leading taxonomies and nomenclatures and the consequences for the national Zambian list, Important Bird Areas and National Parks lists.

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Introduction

Everybody has, without doubt, noticed the many differences in the names used (nomenclature) and bird species recognized (taxonomy) between the various lists and field guides. The Zambian list and Important Bird Area (IBA) & National Park (NP) lists (as managed by Pete Leonard for years and more recently by myself, on behalf of BirdWatch Zambia) have so far basically followed the nomenclature and taxonomy of Bob Dowsett and Françoise Dowsett-Lemaire as published in, for instance, the *Birds of Zambia* (Dowsett *et al.* 2008, hereafter referred to as BoZ) and the IBA book (Leonard 2005). A good few bird names have however gone “out of fashion” over time, often because of other names used for the same species elsewhere. Moreover, new insights (notably DNA techniques) have led to changes in taxonomy. For Zambian birders, this became overly clear with the publication of field guides like “Birds of Africa South of the Sahara” (Sinclair & Ryan 2003), which largely follow the standardized list compiled by the International Ornithological Committee (IOC, see www.worldbirdnames.org). A source of confusion and irritation for many... which confirms that it arguably makes sense to stick to one standardized worldwide list.

But how do we all agree on the same list? The sets of criteria (when do we consider birds to be the same, or different, (sub)species?) behind the major lists including the IOC list, have often been argued not to be truly standardized, objective and repeatable. In order to tackle this issue, the so-called *Tobias criteria* were formulated, on base of which the taxonomy in the recently published *Illustrated Checklist of the Birds of the World* is based (Del Hoyo & Collar 2014 and 2016; see here also for info on the Tobias criteria). The *Illustrated Checklist* is a partnership between the team behind the Handbook of the Birds of the World (HBW) and BirdLife International (BLI). The resulting checklist now forms the basis for all of BLI’s activities including their “datazone” (datazone.birdlife.org) and HBW’s projects including the *HBW Alive* website (www.hbw.com). I’ll refer to this system as “HBW/BLI” hereafter.

Although it was quite convenient in recent years to stick to the “old list” we are all familiar with, BirdWatch Zambia can’t remain behind. Since BirdWatch Zambia is a partner of BirdLife International, there is in fact an element of urgency.

Admittedly long overdue, I have now transformed our national and IBA lists into the HBW/BLI and the IOC (version 8.1) systems, while at the same time evaluating which species should be on the list, as well as updating all the IBA lists.

Before going any further, let me firmly state that my personal opinion about the taxonomy and bird names used, is not relevant. Would I have it my way, I would start with banning the disqualifying “Common” from bird names! However, the prime purpose of this exercise is to make the list compatible with other sources. Shopping from the various options to come up with what one might consider “the best list”, would defeat the purpose and undermine the noble efforts of global standardization.

This however doesn't mean that I didn't have a very critical look at which species are listed for Zambia in the HBW/BLI and IOC lists. Indeed, I did conclude that some species were listed without evidence for their appearance in Zambia. Which is unavoidable, considering the task of the IOC and HBW/BLI, having to map over 30,000 taxa (species plus subspecies) worldwide. In contrast, some of the recent discoveries still needed to be added. This way we're contributing to the correctness of the global databases.

All in all: a new list, which will now be made available through the BirdWatch Zambia website in Excel format. As mentioned, it includes both the HBW/BLI and IOC systems as well as the "old list" (Leonard 2013) for comparison. It is unfortunate that lots of differences exist between these (and other) leading lists. At the recent global ornithological congress in Vancouver, the intention to come to a truly global consensus has (again) been expressed. I sincerely hope that this will soon finally be achieved.

Which system should we use? There's not a best option by definition, so this might vary depending on purpose of use. Since, however, BirdWatch Zambia is the national partner of BLI, the HBW/BLI system will now be the preferred standard for the organization.

What has changed?

Firstly: the order of families, genera and species. DNA analyses have drastically changed our understanding of the "taxonomic tree". How closely are families related to each other, and to which family does each genus and species belong. The Ostrich is still 'top of the list' in our case, but now followed by the geese and ducks. Owls have proved to be closely related to most raptors, but falcons not. Pipits and wagtails have "dropped down the list" and are now found in the bottom part with the weavers, finches and buntings. And so on!

Secondly, changes in common (English) and scientific names of genera and species, following these and other analyses. I will not highlight any examples as changes are just too many. I have instead chosen to include the "old" and "new" names in the list, for easy comparison. I can only encourage everybody to explore what names are now in use.

Less impacting from the perspective of a national species total, are the changes in taxonomy at species level. Certainly, from a global perspective, there have been lots of changes. The number of species recognized seems to be ever increasing over time, which is largely due to "splitting" a known species into multiple species. On a national scale, however, changes have been limited, as often only a single form of such a "species complex" occurs. Again, I won't go into such taxonomic changes at global level, as changes are just too many. I will explain in detail however where these revisions directly affect the national list because of multiple forms (always two, in practice) having been recorded, as well as consequences at IBA/NP level.

When the publication of the new HBW/BLI *Illustrated Checklist* was announced, the hundreds of "new species" (reflecting numerous new splits) were highlighted. Intriguingly, the consequences for the Zambian list are quite the opposite. Where the IOC list comes to a much longer list of Zambian species than the Dowsett's list (779 and 763 species, respectively, including recent additions since BoZ publication), the HBW/BLI list sees a good few (7) of these splits again revoked. Including a couple of new splits, the HBW/BLI list totals "only" 774 species.

One of many splits not affecting the national species total, which does however certainly demands mention: Papyrus Yellow Warbler has been split by HBW/BLI. The newly recognized "Zambian Yellow

Warbler” *Calamonastides bensoni* is endemic to the Luapula Mouth, which is shared between Zambia and the DRC. A new near-endemic for our country!

Which changes were made to the Zambian list, and what are the effects for the IBA lists?

An overview of changes affecting the national species total is given in table 1 (additions since the publication of BoZ in 2008) and table 2 (taxonomic changes).

Table 1. Additions to the Zambian national list since Birds of Zambia (2008). Names following HBW/BLI, with IOC8.1 name in brackets if different.

Species	Scientific	Reason
Common Ostrich	<i>Struthio camelus</i>	In HBW/BLI and IOC but not in Leonard 2013. Extinct in the wild.
Hartlaub's Duck	<i>Pteronetta hartlaubii</i>	first record
Spot-breasted Ibis	<i>Bostrychia rara</i>	first record
Egyptian Vulture	<i>Neophron percnopterus</i>	first record
Red-necked Buzzard	<i>Buteo auguralis</i>	first record
Rock Dove	<i>Columba livia</i>	now considered established in Zambia (feral; introduced)
Whistling Yellowbill (Green Malkoha)	<i>Ceuthmochares australis</i>	first record but also see Table 2
Oriental Cuckoo	<i>Cuculus (saturatus) optatus</i>	first record (old specimen re-examined)
Vermiculated Fishing-owl	<i>Scotopelia bouvieri</i>	first record
White-chested Tinkerbird	<i>Pogoniulus makawai</i>	variations in whether considered a valid species
Grey Kestrel	<i>Falco ardosiaceus</i>	first record
Common Myna	<i>Acridotheres tristis</i>	new arrival (introduced)

Table 2. Changes in species totals resulting from “lumping” and “splitting” in the HBW/BLI and/or the IOC list. See the national list for scientific names.

Leonard 2013	IOC v8.1	HBW/BLI 2017
Crested Guineafowl	Crested Guineafowl	Western Crested Guineafowl
		Southern Crested Guineafowl
Shelley's Francolin	Shelley's Francolin	Shelley's Francolin
		Whyte's Francolin
Eurasian Black/Yellow-billed Kite	Black Kite	Black Kite
	Yellow-billed Kite	
Burchell's (White-browed) Coucal	White-browed Coucal	White-browed Coucal
	Burchell's Coucal	
Green Coucal (Blue Malkoha/Yellowbill)	Blue Malkoha	Chattering Yellowbill
	Green Malkoha	Whistling Yellowbill
Scimitarbill	Black Scimitarbill	Black Scimitarbill
	Common Scimitarbill	Common Scimitarbill
Rock (Common) Kestrel	Common Kestrel	Common Kestrel
	Rock Kestrel	
Cabanis's Bulbul	Cabanis's Greenbul	Cabanis's Greenbul
	Placid Greenbul	

Eurasian/African Reed Warbler	Eurasian Reed Warbler	Common Reed-warbler
	African Reed Warbler	
Greater Black-backed (Luapula) Cisticola	Winding Cisticola	Winding Cisticola
	Luapula Cisticola	Luapula Cisticola
Neddicky (inc. Long-tailed Neddicky)	Neddicky	Neddicky
	Long-tailed Cisticola	Tabora Cisticola
Bleating Bush Warbler	Green-backed Camaroptera	Bleating Camaroptera
	Grey-backed Camaroptera	
Miombo (Stierling's) Barred Warbler	Miombo Wren-Warbler	Miombo Wren-warbler
	Stierling's Wren-Warbler	Stierling's Wren-warbler
Yellow-bellied Eremomela	Yellow-bellied Eremomela	Yellow-bellied Eremomela
	Salvadori's Eremomela	
Miombo Double-collared Sunbird	Eastern Miombo Sunbird	Eastern Miombo Sunbird
	Western Miombo Sunbird	Western Miombo Sunbird
African Masked Weaver (inc. Katanga Masked Weaver)	Southern Masked Weaver	Southern Masked Weaver
	Katanga Masked Weaver	Katanga Masked Weaver
African Quailfinch	Quailfinch	African Quailfinch
Black-chinned Quailfinch		
Richard's (Grassveld/African) Pipit	African Pipit	African Pipit
	Mountain Pipit	Mountain Pipit
African Citril	Western Citril	Yellow-browed Citril
	Southern Citril	East African Citril

1) Additions

Since the Birds of Zambia was published in 2008, nine species could be added to the list following a first record for Zambia (tab. 1; Willems & Leonard *in prep.* and see the various articles in the Wattled Crane).

In addition, I also decided to now include the following species, in line with other lists:

Ostrich: included in BoZ, as extinct in the wild, but not listed in Leonard (2013). It is not impossible that birds might still wander in from adjacent countries, e.g. Angola, which is an argument to keep it on the list. Would a free-ranging population get established in future, these could be added as “re-introduced” or “feral” depending on locations.

Rock Dove: long doubted whether truly feral (= surviving independent from direct human support, contra domestic, which in this case includes racing pigeons and free-flying pigeons bred for their meat). It certainly seems feral these days in many towns in my opinion, and it has as such been included in the HBW/BLI list for Zambia. On IBA level, I've only listed it for Mosi oa Tunya and Chisamba IBA's, on base of personal records. Records for other IBA's requested!

White-chested Tinkerbird: this enigmatic bird, still known only from the type specimen, has been topic of debate ever since it's discovery. Whether or not a valid species will hopefully soon be revealed using DNA techniques, although a recent study was not conclusive (Kirschel *et al.* 2018). Until then, we're simply following IOC and HBW/BLI in including it as a valid species. Which makes it one of Zambia's 3 endemic bird species!

2) Removals: lumping

We have “lost” a single species: African & Black-chinned Quailfinch are now considered forms of a single species, by both the IOC and HBW/BLI. For the IBA lists, this is easy to implement as we’re combining two into a single species. Hence any IBA where either was recorded, will now be ‘scored’ for the combined “Quailfinch”.

3) Additions: splitting

These are the species which were included as a single species in the “old list” but considered multiple species by IOC and/or HBW/BLI.

Western & Southern Crested Guineafowl: a new split by HBW/BLI on base of the (very distinct) morphological differences. IBA assignments clear-cut as they are geographically well separated and (sub)species level is indicated in BoZ; the IBA’s in Mwinilunga District and West-Lunga/Lukwakwa hold Western, all other IBA’s Southern.

Shelley’s & Whyte’s Francolin: we don’t really know enough of the distribution. Presumably these forms are geographically separated. HBW/BLI suggests Whyte’s is restricted to the Sumbu - Mporokoso – Nyika area, which we know is not correct. According to BoZ, the birds in the “east and south” are Shelley’s, while the birds “elsewhere” are Whyte’s. I certainly can confirm that the birds in Kasanka, Lavushi Manda and Mutinondo clearly are Whyte’s on base of my photographs. It seems likely that all birds west of Luangwa River and north of S14°, as well as in the NE highlands, are Whyte’s. Provisionally I have assigned the IBA’s as such. It is quite possible that Kafue NP holds both species. I’ve scored only Shelley’s but the birds in the far north might prove to be Whyte’s.

Black & Yellow-billed Kite: problematic as both occur throughout. I’ve assumed that every IBA where the species pair has been recorded, should be ticked for Yellow-billed Kite. For Black Kite, I’ve used the data plotted in BoZ as well as more recent records I’m aware of.

White-browed & Burchell’s Coucal: interestingly, in recent months pictures of very convincing “pure” Burchell’s were obtained in South-Luangwa. On base of this, I’ve added it to the SLNP list. Presumably such birds also occur in the Lower Zambezi NP but I’m not aware of any evidence of that. There are old records from the lower parts of Luangwa and Zambezi downstream of the Lower Zambezi NP, see BoZ.

Blue & Green Malkoha: clear-cut as geographically well separated. Green was only recently discovered in Lower Zambezi and lower Luangwa, but not (yet) in SLNP. All other birds (extreme N and NW of the country) are Blue.

Common & Black Scimitarbill: Black is restricted to the extreme west. Hence straight-forward for most of the county. The extent of occurrence of the forms in the west seems not all that clear. Benson *et al.* (1971) describe the range of Black as “Northern Mwinilunga, [...] Balovale and Kalabo south to the South Lueti River west of the Zambezi, also between Mongu and Senanga.” I’ve assigned the IBA’s along these lines. Any confirmation would be worthwhile, most notably for the Upper West-Lunga, West-Lunga NP & Lukwakwa, where even both forms might occur.

Common & Rock Kestrel: in BoZ, only 2 records (both outside IBA's) are assigned to Common Kestrel. Hence all IBA records I've assigned to Rock Kestrel. There have been other reports of (probable) Common Kestrel (e.g. in North-Luangwa) but these can't be accepted beyond doubt without supporting evidence, considering identification challenges.

Cabanis's & Placid Greenbul: Placid is restricted to the Afromontane areas of East-Africa. The only area in Zambia where it has been recorded, is the Mafinga Mountains.

Eurasian & African Reed Warblers: assigning records to these forms includes a lot of guess work, but I decided to follow BoZ, in treating African as the more common of the two. Hence only IBA's for which Eurasian is indicated in BoZ, plus the ones I have definite records for, are scored with a 1 for this form. Separation of these forms, if not clearly photographed or caught, is challenging at the best of times.

Winding & Luapula Cisticola: one of the more controversial splits. Apart from whether there is indeed a species divide, it seems not thoroughly studied to which taxon the birds in the Bangweulu-Luapula system would belong. Simply following the IOC and HBW/BLI pending further study, I've assigned the birds of Mweru Wantipa to Winding. Any birds in the Luapula mouth (where, surprisingly, yet unrecorded according to the IBA list, and indeed possibly also according to BoZ) and further south, would be Luapula Cisticola.

Neddicky & Long-tailed (or Tabora) Cisticola: apart from some claims of hybrids, these forms seem quite neatly geographically separated. Hence these can be attributed at IBA level. Note that the birds in Mwinilunga are considered Neddicky, contra the old IBA list and the map in BoZ, but in line with e.g. Benson 1971 and as also confirmed by catches at Cassin's Camp in 2017 (Bryson *et al. in prep.*). All birds in Kafue NP are assigned to Neddicky. Long-tailed has been recorded along the Kasempa-Mumbwa Road at the Lunga ferry and the Kaungashi River, so probably occurs also inside the NP, but this is yet to be confirmed.

Grey- & Green-backed Camaroptera: thought to be geographically separated, with the birds in the northeastern highlands being Green-backed. It's unrecorded from the Nyika IBA but does occur in the Mafingas. Some of the maps (e.g. on the Xeno-Canto website) suggest a wide distribution of Green-backed in the far north, which is without basis to my knowledge.

Miombo & Stierling's Wren-warbler: geographically separated hence doable to assign to IBA level. I have scored Miombo for Shiwa N'gandu IBA, which I have personally recorded here. It is however plausible that both forms meet here, with possibly Stierling's on higher grounds. It appears that both forms occur within Bangweulu IBA (where separated geographically, as a result of habitat gradients?). Similarly, the situation in the Ndola area (where the type of the *buttoni* subspecies of Stierling's comes from) is worth more study.

Yellow-bellied and Salvadori's Eremomela: another controversial split. The race "lundae" would apparently be part of the Salvadori complex. It has been recorded in Zambezi district S to South Lueti River, as well as "extreme northern Mwinilunga" (Benson *et al.* 1971). Hence I have assigned the Jimbe birds to this taxon as well as the Zambezi district ones, with presumably the Barotse Floodplains holding both forms (which requires confirmation).

Western and Eastern Miombo (Double-collared) Sunbird: a rather nice split in my opinion, as this is a truly "Zambian discovery" (see Irwin *et al.* 2014) which I'm happy to wholeheartedly endorse on base of my field observations in Mutinondo. Pete Leonard kept separate notes of the two forms at IBA level so these are quite easily assigned. There is uncertainty though about status of both in the

northeast. During this year's Mafinga survey, we were able to establish both to be present here (Phiri *et al.* 2018). Eastern is likely to occur in more sites than so far recorded, such as North and South Luangwa NP's (in the escarpment), Shiwa N'gandu and Nyika.

Southern & Katanga Masked Weaver: the two are well-separated geographically making assigning to IBA level straight-forward.

African & Mountain Pipit: the latter is probably the most surprising appearance on the list for many people. Specimens from western Zambia (Mwinilunga and Zambezi districts) originally described as the "*Iwenarum*" subspecies of African Pipit, are now by some authorities considered to be one and the same taxon as the Mountain Pipit, a breeding bird of Lesotho and adjacent parts of the Drakensberg in South Africa. It is thus suggested that Mountain Pipit migrates from the Drakensberg area into Zambia in the austral winter. In the opinion of many, there is, however, no foundation to consider these Zambian birds to be Mountain Pipit. It seems much more likely that Mountain Pipit is just an altitudinal migrant in the Drakensberg area and (Craig 2015). Whether or not true, it once more suggests there are unravelling mysteries in Zambian ornithology! I have, with reluctance, included the species in the Zambian list in order to stick to BLI/HBW and IOC, but not scored it for any of the IBA's (details given in Benson *et al.* (1971) suggest it was collected in Minyanya and Chitunta or Luakera Plain).

Western (or Yellow-browed) and Southern (or East-African) Citril: geographically separated hence straight-forward to assign, with Western occurring in the Mbala area (not yet recorded in any IBA but might show up in Uningi and Saise) and Southern in the Mafingas and Nyika.

4) Rejected additions

Red-throated & Large Rock Martin: the HBW/BLI list treats Rock Martin as several species, of which Red-throated and Large Rock Martin would occur in Zambia. There seems however no reason to believe that Large Rock Martin (which includes the forms known from W-Angola through W-Namibia into Botswana, SW Zimbabwe and S-Mozambique, and further south) occurs in Zambia. Indeed, the map of this species does not match the text in HBW/BLI. I therefore have only included Red-throated Rock Martin in the list.

Arnott's & Ruaha Chat: the IOC lists these forms as separate species, while HBW/BLI treats them as subspecies. In both cases, it is stated that Ruaha Chat occurs in N-Zambia. This has indeed been suggested in the article which describes Ruaha Chat as a distinct species (Glen *et al.* 2011) on base of habitat modelling, but there is no evidence whatsoever confirming this. I have looked at pictures of Arnott's Chats near Kalambo Falls which suggest them to be normal Arnott's (Willems 2014).

Southern & Northern Red-headed Weaver: Southern is the widespread form in Zambia but Northern (with black facial mask and red instead of yellow wings) would occur as well in northern Zambia according to HBW/BLI. However, this is on base of some specimens with "... some black on the face, thus tending towards *leuconotus* [= Northern] (but with yellow, rather than red, wings)" (BoZ). Because of the yellow wings, it is unlikely that these were 'true' Northern, and maybe not even true hybrids. Hence it is a bit of a stretch to include Northern on the national list.

Sites included in the IBA list

The IBA list follows Leonard (2013) in including all formally recognized IBA's (Leonard 2005) as well as Luambe NP, the then only NP which had not been given IBA status. I have included one new site (including 3 "subsites") which we feel meets IBA status, which is the Upper West-Lunga, provisionally suggested to roughly include the West-Lunga River catchment area upstream of the confluence with the Luakera River. A more extensive description including proposed boundaries will be published in due course.

In the meantime, it seems we have 2 new "National Parks": Lusaka and Sioma Falls. Although there is no indication at this stage that these sites would deserve IBA status, it would however be of interest to keep track of the birdlist in both. Birdlists do exist for both sites and I shall attempt to include these in due course.

Conclusion

Much can be said about all taxonomic developments and associated name changes, but I hope everybody will recognize the need for worldwide standardization. This update will certainly enable better comparison of our national list with other lists.

Any comments much welcome, notably on the assignment of "new" species at IBA level, as this is sensitive to oversights.

The short of it all: we now have 775 on our national list. Let's hit 800!

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