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RÉVÉNYVÉDELMI INTÉZET

AQUILA

A MADÁRTANI INTÉZET

(NÖVÉNYVÉDELMI KUTATÓ INTÉZET MADÁRTANI OSZTÁLYA)

ÉVKÖNYVE

ANNALES INSTITUTI ORNITHOLOGICI HUNGARICI

1958

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HERMAN OTTÓ

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SZERKESZTI:
DR. VERTSE ALBERT

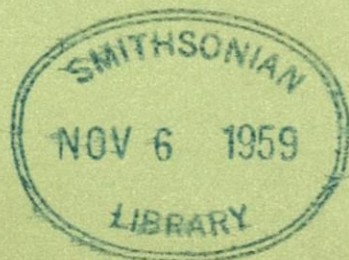
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DR. A. VERTSE

39 szövegábrával

LXV. ÉVFOLYAM

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MADÁRTANI GYŰJTŐÚTJAIM KELET-AFRIKÁBAN

Kittenberger Kálmán †

Első afrikai utamra 1902 december havában indultam el a Magyar Nemzeti Múzeum megbízásából, hogy a Kilima-Ndjaró környékén zoológiai, főképpen ornithológiai gyűjtéseket eszközöljek. Felszerelésem akkor igen kezdetleges volt és a lőszerhiány is nagyon sokszor akadály volt az eredményes működésemnek. Pedig szűz talajon jártam. Jó felszereléssel és kellő anyagi eszközökkel páratlan eredményeket érhettem volna el. A Magyar Nemzeti Múzeumtól a gyűjtött dolgokért befolyt összeg vajmi kevés volt gyűjtőutam szükségleteinek fedezésére és úgy segítettem magamon, hogy időről időre, eladtam trófeáimat.

1906 nyarán hazatérésre kényszerített a trópusi betegségektől meggyengített szervezetem, de még ugyanazon év december havában újra hajóra szálltam, hogy a sivár Danakil-földön folytassam gyűjtői munkámat a Magyar Nemzeti Múzeum részére. Indulásom előtt felkerestem HERMAN OTTÓT is, az akkori Magyar Ornithológiai Központ vezetőjét, hogy följajánljam szolgálataimat s hogy egyúttal kellő útbaigazítást is nyerhessek tőle. HERMAN OTTÓ elsősorban a palaearktikus madarak vonulási idejének megfigyelésére adott megbízást. A fanatikus danakilok országában nehezen ment a munka. Tervem az volt, hogy bejussak a Danakil-föld nyugati, az idáig át nem kutatott részébe. Sajnos sok minden nem úgy történt, mint ahogyan reméltem, sok váratlanul közbejött akadály gátat emelt tervem kivitele elé úgy, hogy alig 80—100 km-re hatolhattam a Danakil-föld nyugati részébe. A palaearktikus fajok és azok gyomortartalmaik gyűjtésében — melyre szintén HERMAN OTTÓ hívta fel figyelmeimet — a lőszerhiány akadályozott meg. 1907 tavaszán főleg Assab vidékén figyeltem meg a madarak vonulását, mely kutatásom eredményéről az Aquilában számoltam be (Aquila, XIV, 1907, p. 175—178). Amikor pedig a viszonyokba már beletanulva megindulhatott volna az eredményesebb munka, 1907 őszén haza kellett jönnöm, hogy katonai szolgálatomnak végre eleget tegyek.

Amint ezen túl voltam, 1908 december havában máris útra készültem, és elindultam harmadik utamra a hazai Zoológiai Laboratórium vezetőjének, DR. MADARÁSZ GYULÁNAK megbízásából, de a Magyar Nemzeti Múzeum elsőbbségi jogának fenntartásával, újra Kelet-Afrikába, a Viktória-Nyanza keleti partja mellékére. Fényképeim és megfigyeléseim javarésze ebből a harmadik utamból származott, mert ezek a feljegyzéseim és fényképeim megmaradtak. Harmadik utamról 1912 május havá-

ban tértem haza a muzeális gyűjteményen kívül nagyobb élő állat-szállítmánnyal az újjáalakított Állatkertünk részére.

Az első Balkán-háború miatt elkésve indulhattam el a negyedik utamra 1913 májusában ugyancsak a Magyar Nemzeti Múzeum megbízásából. Ez az utam Ugandába vezetett, azzal a céllal, hogy innen Congoba megyek át. Tervem azonban csak részben sikerült, amennyiben a Bugama őserdőkön túl nyugatabbra nem hatolhattam. A világháború kitörése hirtelen véget vetett további terveimnek. Az utamon gyűjtött anyag jegyzeteimmel és kézikönyvtárammal együtt ismeretlen helyre került. Remélem, hogy SIR FREDERICK J. JACKSON révén — akinél könyveim maradtak — a British Múzeumba kerültek. Magam majdnem 5 évet töltöttem Indiában az internáló táborban.

Az első világháború után még két ízben tértem vissza Afrikába. Ezek az utaim azonban már nem gyűjtőutak voltak, hanem mint „whitehunter” vehettem részt vadász-expedícióban. 1925 novemberében keltünk útnak Uganda felé, és az 1928/29 években is 6—7 hónapot töltöttünk Ugandában és Belga-Congoban. Gyűjtőútjaimról összefoglaló madártani tanulmány — a Danakil-földi megfigyeléseimet kivéve — nem jelent meg. Anyagomat DR. MADARÁSZ GYULA határozta meg annak idején, több új fajt írt le belőle, melyek közül azonban a legtöbb később a fajnak bizonyult, több egyszerű szinonim névnek, azonban részletes leírást nem adott anyagomról. Anyagomból ugyancsak leírt új alakot REICHENOW is. Megemlíthetem továbbá, hogy YNGVE SJÖSTEDT munkáiban több ízben emlegetett „fiatal magyar gyűjtő”, aki a Kilima-Ndjaron működik, de még nem publikált, azonos velem.

A gyűjtött anyagomból leírt új alakok — tekintet nélkül, hogy azokat bevonták-e vagy sem, a következők:

Serinus mozambicus madarászi Reichenow

Chaetops kilimensis Mad. (1914)	= Melocichla mentalis orientalis Sharpe
Cisticola katonae Mad. (1904)	= <i>C. brachyptera katonae</i> Mad.
Cisticola pictipennis Mad. (1904)	= C. cantans pictipennis Mad.
Chlorophoneus miniatus Mad. (1904)	= Chl. nigrifrons Rehw.
Laniarius ambiguus Mad. (1904)	= L. ferrugineus ambiguus Mad.
Prodotiscus reichenowi Mad. (1904)	= P. insignis ellenbecki Erlanger
Charadriola singularis Mad. (1904)	= Tmetothylacus tenellus Cab.
Cisticola humilis Mad. (1904)	C. chiniana humilis Mad.
Spiloptila reichenowi Mad. (1904)	= Sp. rufifrons rufidorsalis Sharpe

Bradypterus mariae Mad. (1905)

Burhinus esongor Mad. (1909)	= B. capensis capensis Licht.
Sylvietta distinguenda Mad. (1910)	= S. whyttii jacksoni Sharpe
Remiz kolomani Mad. (1910)	= Anthoscopus caroli sylvielli Rehw.
Apus kittenbergeri Mad. (1910)	= A. apus barbatus P. L. Sclater
Phyllostrephus dowashanus Mad. (1910)	Ph. fischeri sucosus Rehw.
Crateropus reichenowi Mad. (1910)	= Turdoides jardinei emini Neum.
Riparia nigricans Mad. (1910)	= R. paludicola nigricans Mad.

Sarothrura antonii Mad. et Neum. (1911)

Hedydipna danakilensis Mad. (1915)	= H. platura metallica Licht.
Spiloptila danakilensis Mad. (1915)	= Sp. rufifrons rufifrons Rüpp.
Cursorius ruwanensis Mad. (1915)	= C. temminckii temminckii Swainson

Vinago gibberifrons Mad. (1915)	= Treron calva salvadori Dubois
Francolinus dowshanus Mad. (1915)	= Fr. squamatus zappeyi Mearns
Caprimulgus ugandae Mad. (1915)	= C. natalensis chadensis Alexander
Copenhaga confusa Mad. (1915)	= C. quiscalina quiscalina Finsch
Sporopipes cinerascens Mad. (1915)	= S. frontalis cinerascens Mad.
Emberiza agnata Mad. (1915)	= E. poliopleura Salvadori
Lagonosticta kilimensis Mad. (1915)	= L. rubricata hildebrandtii Neum.

A fenti elnevezésekhez még azt a magyarázatot kell fűznöm, hogy DR. HORVÁTH GÉZA, a Magyar Nemzeti Múzeum akkori igazgatója távollétemben önkényesen használta nevemre a „Katona” nevet, holott én nem változtattam meg nevemet sohasem, csupán testvérbátyáim magyarosították a fenti névre.

Köszönetet mondok DR. BOROS ISTVÁNNAK, a Természettudományi Múzeum főigazgatójának, és DR. SZÉKESY VILMOSNAK, hogy 1951-ben lehetővé tették, hogy DR. GRESCHIK JENŐVEL az afrikai madáryanagomat átvizsgálhattuk és revízió alá vehettük. Köszönetet mondok DR. GRESCHIK JENŐNEK is, aki rendszertani szempontból nézte át anyagomat.

Közös vizsgálatunk jegyzeteinek másolatai szerencsésen megmaradtak lakásomon, mivel az eredeti jegyzetek, valamint egész gyűjtésem anyaga a Természettudományi Múzeum 1956 évi pusztulásakor a tűz martalé-kává lett.

Az alábbiakban rendszertani sorrendben sorolom fel az általam gyűjtött, vagy megfigyelt fajokat. Famíliákig bezárólag WETMORE (1951) rendszerét követem, családokon belül PETERS (1931—1951) check-listjét, illetve a Passeriformes-eknél CHAPIN (1953—1954) által követett sorrendet iparkodtam betartani.*

My Ornithological Collecting Expeditions in East-Africa I.

by. K. Kittenberger †

I started for my first trip to Africa in December 1902, in order to do zoological and especially ornithological collecting-work for the Hungarian National Museum. My outfit then was very primitive indeed and lack of ammunition very often hindered my successful activity, though I crossed virgin territories. With a good outfit and the necessary material means I could have obtained unparalleled results. The sums I got from the Hungarian National Museum for the collected material was far too little to cover the requirements of my collecting expedition and so I had to fill gaps by selling my trophies from time to time.

My constitution, weakened by tropical diseases, forced me to return in Summer 1906, but in December of the same year I sailed again already, to continue my collecting activity for the Museum on the desolate Danakil territory. Before starting I called on OTTO HERMAN, the director of the Hungarian Ornithological Institute to offer him my services and also to get some necessary informations. OTTO HERMAN first of all entrusted me with the observation of times of migration of palaeartic birds. In the land of the fanatic Danakils work but difficultly proceeded. My plan was to reach the western, hitherto unexplored part of the Danakil territory. Alas, things

* Mivel a tanulmány részleteiben elsősorban az afrikai madarakkal foglalkozó kutatókat érdekli, ezért helymegtakarítás végett a részletes eredményeket csak angol nyelven közöljük, hogy a nemzetközi irodalom számára is hozzáférhető legyen. Szerk.

did not go as I hoped and a lot of unexpected obstacles prevented the fulfilment of my plans, so that I could not get further than 80—100 kilometres into the western part of Danakil-land. The shortage of ammunition prevented me in collecting palaeartic species and the contents of their stomachs — to which it was again OTTO HERMAN who called my attention. In spring 1907 I observed the migration of birds mainly in the surroundings of Assab, and I published the result of these researches in *Aquila*, XIV, 1907, p. 175—178. And when, getting at last acquainted with the circumstances, more successful work could have been started, in autumn 1907 I had to return to fulfill my military duties.

As soon as I had finished with this, in December 1908 I again started for my third expedition, on behalf of DR. JULES MADARÁSZ, director of the National Zoological Laboratory, but reserving priority to the Hungarian National Museum, again to East-Africa, to the eastern shores of Victoria-Nyanza. The greatest part of my photos and observations originate from this third expedition, because these only remained, all others were lost. I returned in May 1912 from this third expedition, bringing with me, besides museal collections, a good number of living animals for our Zoo, which has then been reorganized.

I could only start late for my fourth journey, in May 1913, because of the first Balcan-war, again on behalf of the Hungarian National Museum. This expedition was directed to Uganda, with the aim to pass over to Congo from there. This plan only partly succeeded, because I could not get further West than the Bugamavirgin forest. The World War suddenly put an end to my further plans. The material collected during my expedition, as well as my notes and my little library got into unknown hands. I hope that through SIR FREDRIC J. JACKSON — at whom my books remained — they got into the British Museum. As for myself, I spent almost five years in India, interned in a camp.

I twice returned to Africa after the first World-War, but these journeys were not collecting expeditions any more, but I took part in shooting-expeditions as a „white-hunter”. We started in 1925 from Uganda and in 1928/29 we spent again 6—7 months in Uganda and Belgian Congo.

No ornithological paper, that summarized the results of my expeditions was published — except my ornithological observations in Danakil-land. My material has been determined by DR. JULES MADARÁSZ, who described several new species, most of which later on proved to be sub-species, several as synonym names, but he gave no detailed description of my material. REICHENOW also described some new species of my material. It may be worth to note further, that the „young Hungarian collector” several times mentioned in the works of YNGVE SJÖSTEDT, as working on the Kilima-Ndjaru, who has not been published yet, is nobody else than myself.

The new species described from my material — whether they have been accepted or not — are the following:

Serinus mozambicus madarászi Reichenow

<i>Chaetops kilimensis</i> Mad. (1904)	= <i>Melocichla mentalis orientalis</i> Sharpe
<i>Cisticola katonae</i> Mad. (1904)	= <i>C. brachyptera katonae</i> Mad.
<i>Cisticola pictipennis</i> Mad. (1904)	= <i>C. cantans pictipennis</i> Mad.
<i>Chlorophoneus miniatus</i> Mad. (1904)	= <i>Chl. nigrifrons</i> Rehw.
<i>Laniarius ambiguus</i> Mad. (1904)	= <i>L. ferrugineus ambiguus</i> Mad.
<i>Prodotiscus reichenowi</i> Mad. (1904)	= <i>P. insignis ellenbecki</i> Erlanger
<i>Charadriola singularis</i> Mad. (1904)	= <i>Tmetothylacus tenellus</i> Cab.
<i>Cisticola humilis</i> Mad. (1904)	= <i>C. chiniana humilis</i> Mad.
<i>Spiloptila reichenowi</i> Mad. (1904)	= <i>Sp. rufifrons rufidorsalis</i> Sharpe

***Bradypterus mariae* Mad. (1905)**

<i>Burhinus esonger</i> Mad. (1909)	= <i>B. capensis capensis</i> Licht.
<i>Sylvietta distinguenda</i> Mad. (1910)	= <i>S. whyttii jacksoni</i> Sharpe
<i>Remiz kolomani</i> Mad. (1910)	= <i>Anthoscopus caroli sylvielli</i> Rehw.
<i>Apus kittenbergeri</i> Mad. (1910)	= <i>A. apus barbatus</i> P. L. Selater

Phyllostrophus dowashanus Mad. (1910) = Ph. fischeri sucosus Rehw.
 Crateropus reichenowi Mad. (1910) = Turdoides jardinei emini Neum.
 Riparia nigricans Mad. (1910) = R. paludicola nigricans Mad.

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Hedydipna danakilensis Mad. (1915) = H. platura metallica Licht.
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 Caprimulgus ugandae Mad. (1915) = C. natalensis chadensis Alexander
 Copenhaga confusa Mad. (1915) = C. quisqualina quisqualina Finsch
 Sporopipes cinerascens Mad. (1915) = S. frontalis cinerascens Mad.
 Emberiza agnata Mad. (1915) = E. poliopleura Salvadori
 Lagonosticta kilimensis Mad. (1915) = L. rubricata hildebrandtii Neum.

To the above denominations I have to explain that during my absence DR. GÉZA HORVÁTH, then director of the Hungarian National Museum, arbitrarily applied instead of my real name the name „KATONA”, though I never changed my name; it was only my brothers who „magyarized” their name to „KATONA”.

I owe thanks to DR. STEPHEN BOROS, head-director of the Museum for Natural Science and Director DR. WILLIAM SZÉKESSY who made it possible, that — together with DR. EUGENE GRESCHIK — we were able to examine again and to revise my African material. I also owe thanks to DR. EUGENE GRESCHIK, who revised my material from a systematic point of view.

The copy of the notes of our common examinations were luckily preserved at my flat, as the original material of my collection had been destroyed when the National History Museum burnt down in 1956.

Here below I am listing the species that were collected or observed by me in a systematic order. Inclusively to Familiae I follow WESTMORE's system (1951), within the families the check-list of PETERS (1931—1951), respectively with the Passeri-formae I tried to follow the order set up by CHAPIN (1953—1954).

Struthio massaicus NEUM. — On those steppes and savannas of East-Africa, I have crossed the fine, red-necked massai ostrich is at home. On those parts of Uganda, Unyoro and Belgian Congo, where I traveled, there are no ostriches.

While we walk on the burning hot, desert-like steppes, where glowing sunshine, gives fata-morgana effects, we may often notice, amongst the herds of antelopes, gazelles and zebras, large, black or grey balls. Even beginners soon recognize in these „balls” — ostriches, though the distance is so great, that the head and neck of this giant bird is not yet visible to the bare eye. But the alert birds have also noticed us now and a degenerated wing decorated with large white feathers, is being flapped. This is the sign with which the ostrich warns the grazing or resting animals in its surroundings.

The herds of antelopes and zebras profit of the excellent eye of the almost three meters high ostrich, while the ostrich profits of the hoofed herd's excellent sense of smell. It is in this way that they mutually protect each other, should the enemy be man or beast.

I always knew the ostrich to be a very cautious bird, though its shooting was prohibited in Tanganyika since 1903. Shooting licences were given only for museal purposes. It is in this way that I got licences when I made my first and third expedition.

On the Massai-territory the roding time is about April and beginning of May. At this time we can often hear the deep booning call of the old ostrich cock, which is

easily mistaken by the beginner for lion roaring a long way off. The call of the ostrich cock often even misled my natives, though these had enough opportunity to hear the roaring of lions. During the roding time the ostrich cock's neck strogly swells and is of a bright red colour. In the mating season the cocks are often fighting severely. On the place of such fights my men always picked up a lot of lost feathers, which afterwards they sold to the Wagayas.

The cock takes his part in the incubation of the eggs and relieves sitting hen. Younger hens often lay their eggs in a common nest. Once, walking on the grasscovered plateau of Ndassekera, I have been greatly startled by two big grey clumps jumping up right from under my feet and bolting away. They were two ostrich hens, which were so busily brooding, that they let me come quite near and left their common nest only in the last moment.

Even out of breeding time we often find odd ostrich eggs on the steppes dropped there, because when there is plenty of food, odd eggs will still develop in the resting ovaries.

The incubating ostrich often becomes a prey of the great cats, while the spotted hyaena prefers to rob the eggs. The ostrich-chickens of course have still more enemies, though the parents efficiently detend them against the lesser robbers. The kick of an old ostrich cock can disable even an attacking leopard.

During my first collecting expedition in Africa I had the opportunity of observing a very interesting scene of the ostriches' life. Starting from Arusha and touching the Marti hills I tended towards Ufiomi. Scarcely one day and a half away from Arusha we found fresh buffalo traces in an abyss covered with unpenetrable bushes. The buffaloes, being very scarce, after the great plague, I thought it worth to spend a day or two going after buffaloes.

In the ticket it was impossible to get a shot at the buffaloes. Not even early at dawn could I find them on a more open place and so my only hope was to sight them at evening-twilight, when they went to the water.

At sunset I started for the place, from where the buffaloes went to the water. It was already getting dark, when my Massai guide pointed to a dark mass. I at once realized that it was not a buffalo that I had in sight, but an ostrich. I had to get an ostrich and I could not hope any more to get a buffalo, so I took a shot at the cock of the pair of ostriches walking beside each others. As it was getting too dark, I completely missed the bird.

Right after my shot the cock swiftly ran in our direction; getting near to us it collapsed, then, beating with its wings, it stood up again and making a few staggering steps it collapsed anew. At first I was very much astonished, as I knew for sure that I had missed, but I soon realized that the cock, with its quaint behaviour, tried to avert my attention from its chickens which were nearby. Still, my guide was of the opinion, that the cock was severely wounded, therefore he ran towards the ostrich, to give him a coup de grâce. I was very much interested, so I let my Massais do, following them myself. When the Massai came so near to the ostrich, that he was on the point of giving the blow with his spear, the ostrich jumped up again and staggered on. So it went for some time. The ostrich collapsed, writhed and when his pursuer was sufficiently near, picked himself up again and staggered on. While doing this, the ostrich as well as my Massais got out of my sight, when at once, a good bit behind me, approximately there, from where I fired my shot, I heard the boing call of the old cock. The old cock, after having deceived his pursuer for about two hundred yards, suddenly and swiftly returned to his chickens.

Next day at dawn, going again out after buffaloes, I inspected the place of the ostrich-scene of the evening and we found there the wing of an ostrich-chicken torn to pieces; this chicken was killed by a Serval, while the old cock self-sacrificingly tried to avert the danger from its chickens.

The exposed pair of Massai-ostriches I collected on January 1st 1906, near Masti. The pair of ostriches I collected near the Ngare Dovash, the Museum did not take over.

Podiceps ruficollis capensis (SALVAD.) — I found the Little Grebe near the small lakes and ponds of Massai-land in great numbers. It was very difficult to make them take to their wings. The museal specimens I shot near Boma Gombe in a small pond desiccating in the dry season, on April 25th and May 10th 1903.

Pelecanus rufescens GM. — I met the Grey Pelecan already in the Suez-canal. They often fished right ahead of the boat's prow. There were especially many of them near the Menzaleh lakes, and very frequent at the Red Sea. In the surroundings of Assab, on the coral banks of the lagoons they fished in smaller or larger groups. Once I observed single brown-backed pelecan hovering in one place like King-fishers do then dashing down on the fish.

Their breeding place was in the mangrove woods of the island Fatma, together with Reef Herons and Spoonbills. There I collected a clutch of eggs on July 11th 1907.

The specimens in the Museum I collected near Assab, on May 6th and July 11th 1907.

Sula dactylatra melanops HEUGLIN. — Gannets I first observed near Aden, while they dashed into the wildly whirling surf of the house-high waves attacking the black rocks. One would have thought that they never could get out of that wildly, whirling water, but in the next moment they were on their wings, just to dash again into that surf.

They were rather frequent in the surroundings of Assab. I always watched with interest their astonishing flying performances.

I collected all the museal specimens near Assab, on February 6th and 8th and (two specimens) on March 3rd and 8th 1907.

Phalacrocorax africanus (GM.) — The Reed Cormorant was very frequent near the waters of East-Africa in which fish were abundant. One could see them in pairs or in smaller groups. During the hours about noon they are drying themselves with spread wings in the sunshine on rocks emerging from the water or on dry branches of the trees on the shore.

I collected the museal specimens in Boma Gombe, April 26th 1903, Arusha Chini, June 9th 1904, Lake lippe, December 10th and 15th 1904.

Anhinga rufa (DAUD.) — The Darter was very common in East-Africa, near the larger rivers and lakes rich in feshes. It is a gregarious bird. They like to sun themselves on the branches of ambass trees growing out of the water in the society of dwarf comorants or Cattle Egrets. They pass the night on the trees along the shore. They keep their evening fly very well and may easily be shot then.

I collected the museal specimens near Shirati, February 7th, March 3rd and April 23rd 1909.

Ardea goliath (CRETZCHM.) — The Goliath Heron was very frequent near the Red Sea and on its islands I found that they are most frequent near the seas, and they are to be found near larger rivers and lakes. It avoids places covered with reed; I always saw them lurking for fish, standing on sandbanks and rocks protruding from the water.

I collected the museal specimens near Assab on March 18th and on the Fatmah island, July 14th 1907, on the latter day two specimens.

Ardea purpurea L. — I often saw our Purple Heron during the winter-months near the waters and swamps of East-Africa. They were frequent on the south eastern shores of Victoria Nyanza, where odd Purple Herons stood lurking on rocks and sandbanks protruding out of the water. There I often could observe, that a Purple Heron alighted on the head of a Hippopotamus and lurked there for the passing fishes. The Hippopotamus — as I saw — got already accustomed that the Purple Heron used his head as a perching place, because they quietly let the watching heron stand there. I had the opportunity of watching this quaint ensemble on several occasions and for longer time.

I collected the museal specimens near Mto ya Kifaru on January 17th 1905 and near Shirati, on February 19th 1909 two specimens.

Butorides striatus breviceps (EHR.) — This little heron likes to linger on the rocky edges and sandbanks of the seashores. Small animals of the sea, left after hightide, constitute their main food.

I collected the museal specimens in Assab, January 10th 1909 and on the Fatmah island, June 9th 1909.

Butorides striatus atricapillus (AFR.) — This dwarf heron lives a lonely life. I never saw it on open waters. It prefers quiet bays, river branches overshadowed by trees.

The localities and dates of the museum specimens are Arusha Chini, June 5th 1904, March 16th 1905, and Shirati, February 7th 1905.

Ardeola ralloides (SCOP.) — This dwarf, crested heron lives in the swamps and inundations surrounded by reed and sedge. Towards evening they fly in groups to their roosting places and when doing this they somehow remind the observer to the Cattle Egret.

I collected the museum specimens in Arusha Chini, December 4th 1904 and Lale (Lake Kioga) February 24th 1914.

Bubulcus ibis (L.) — The Cattle Egret justly deserves its name, as it faithfully follows the cattle herds. Settling on the backs of cattle they clean them of ticks and other parasites. They never go far from the water. I found that in the proximity of waters situated near the great lakes their number increases greatly. I saw very many of them near Albert Nyanza and everywhere near the huge papyrus-swamps where it constantly follows the herds of Elephants. These herons flying up again and again from the high papyrus are a sure sign that an Elephant herd or a single Elephant is there. Even the direction of the Elephants withdrawal is surely indicated by the flight of the following Cattle Egrets. It is also a faithful follower of the Caffer-buffalo herds.

From the museum specimens I collected three near Boma Gombe on April 22nd 1903, two near Lake Jippe on November 11th 1903 and near Mto ya Kifaru, on July 26th 1904.

Egretta garzetta (L.) — I met our Little Egret mostly during the winter months, usually near swamps from inundations often in the company of one or two Great White Herons. The latter were very cautious, not like the Little Egrets which were easily approached within gun-shot range.

The localities of the museum specimens are Arusha Chini, March 3rd and May 12th 1906.

Egretta gularis (BOSC.) — The Reef Heron was very frequent on the Red Sea and its islands. Their favourite place were the lagoons surrounded by mangrove trees on the small islands near Assab and their breeding colony was also on the mangrove trees. At the time when I collected there (1907) the Italians and still more their hired men made great destruction at their breeding places and shot hundreds of them for their ornamental feathers.

The museum specimens I collected near Assab, on September 20th and 27th, 1907.

Egretta schistacea (HEMPR. ET EHR.) — This Reef Heron was very frequent near Assab and on the islands nearby. They trusted men much more than their white relatives, because their ornamental feathers were not appreciated and so they were not pursued.

I collected the museum specimens (two of them) near Assab, on February 27th and March 18th and 19th 1907.

Egretta intermedia brachyrhyncha BREHM. — I found the short-billed heron in most parts of East-Africa, most frequently near the Victoria-Nyanza. On the ponds remaining after the rainy season overgrown with bulrush and reed one could always see one or two of them. They were very cautious there too.

I collected the museum specimen near Shirati, April 27th 1910.

Ixobrychus sturmi (WAGL.) — I collected Sturm's Little Bittern near overflowed, edgy swamps. I always found them where there were groups of trees near the swamp. When disturbed, they at once alighted on the trees and, just like our Little Bittern, they remained there, with outstretched necks, almost stiffened.

I collected the museum specimens near Arusha Chini, May 10th (two specimens) and June 7th 1904.

Balaeniceps rex GOULD. — The shoe-billed stork is the most characteristic bird of the immense swamps of the Upper-Nile, namely of the so-called „sudd"-country of the White-Nile. One or two decades ago „abu markub" (the Arabs call him the „father of slippers") was the greatest hope of every African bird-collector, as in those times there were very few of these birds in the museums. It was because the Mahdist insurrection had closed those parts for many years, where this bird is to be found.

The shoe-billed stork was first mentioned by the German explorer WERNER, about the year 1840.

Later on — so it is said — it was seen also in the papyrus swamps west of Victoria-

Nyanza. During my third African collecting expedition I eagerly looked for the shoe-billed stork in the papyrus-swamps south-west of Victoria-Nyanza, but without any result. Not even the natives, whom I questioned, knew about it. When I showed the coloured pictures of abu markub to more intelligent Negroes, they declared, that such a bird does not exist in their parts. The less reliable of them, hoping for the promised high bakshish, have several times alarmed me, but when I arrived to the designed place, the pretended shoe-billed stork turned out to be either a giant heron, or a lonely fishing pelean.

It was only on my fourth expedition that I succeeded at last, near the Lake Kioga, to sight the first abu markub, which I managed to shoot. On the swimming islands of Lake Koga's swamps we could daily see even more of these mighty birds. But their approach was very difficult, as even the lightest canoe and the most clever black oarsmen were often unable to struggle through the „sudd”, woven through and through with water-grass and undeveloped papyrus. But abu markub lives only on such places. It was very rare that I saw him on more open places, standing on the edge of a swimming island and lurking, in the way of herons, for the fish which came in front of him.

The shoe-billed stork exclusively feeds on fish. I never saw it on dry land. The crops of shot specimens contained swamp fishes of the type of Protopterus.

It was near Lale (Lake-Kioga) that I collected on March 23rd and 26th 1914 the four specimens for which I had a licence. Now they are in the ROTHSCILD-Collection.

Scopus umbretta G.M. — The Hammerhead lives an hermit's life, it is a lonely bird. I mostly met it near water basins in the beds of dried periodical rivers in the shade of trees. I also saw odd-ones at the hidden water-ponds of the arid, dry and thorn-bushy savannas. Where the Hammerhead gets up, there is water. Every hunter, who strolls in the wilderness, knows this. Usually they were seen alone or in pairs. Only if startled does it give its quacking sound. It cannot be called cautious; if disturbed it flies only short distances. Its food consists of small fish, snails, insects. It builds huge nests with three chambers.

I collected the museal specimens at the following places: Kibosho, February 20th 1903, two youngsters picked out of the nest; Arusha Chini, March 17th 1904, Arusha, September 24th 1905, two specimens.

Anastomus lamelligarus TEM. — The Open-Bill occurred from time to time in large numbers at the swamps near Victoria-Nyanza. In the swamps it waded, like storks do, picking fishes, snails, shells. It has the well-known habit to store the picked shells on dry spots that when they open, it should conveniently get to its favourite food. It also appears at locust-plagues and steppe-fires. Flying in groups to its night-quarters it settles on the branches of ambatsh-trees near the shores.

I collected the museal specimen near Shirati, March 6th 1909.

Ciconia ciconia ciconia L. — I several times met storks, especially at the time of locust-plagues or when black caterpillars infested the steppes, and naturally after steppe-fires. Storks were usually seen in groups and in its groups I often saw Abdim-storks, and almost always marabous. My native escort meant that the Marabou leads the storks.

Abdimia abdimi (LEHT.) — The Abdim's Stork was — in the parts of East-Africa which I explored — nowhere a regularly occurring bird. At the time of great locust plagues and after savanna-fires, together with Wood-Ibises and Marabous, they appear in large groups and then vanish again for months. Amongst such Abdim-stork groups, during winter months, usually our white stork is also found.

I collected the two specimens found in the birdskin collection of the Museum on March 13th 1907 in Assab.

Ephippiorhynchus senegalensis (SHAW.) — The range of the fine Saddle-billed stork, the highest bird of Africa, after the ostrich, is very wide, but still it cannot be called frequent. It is not a gregarious bird. I saw them usually alone or in pairs in the great swamps of the inundations areas along great lakes and rivers.

It is the greatest destroyer of the writhing fish which remained in the swampy holes of the periodical rivers which dessiccate during the dry season. At such times it lives exclusively on fish. In such places we can easily get a shot at the otherwise very careful, cautious bird. The wounded Saddle-billed stork defends itself very efficiently with its powerful beak.

It also appears on the freshly burnt savannas, just as at the locust-plagues. I never saw it take to carrion.

The specimens in the bird-skin collection of the Museum I collected in Arusha Chini, March 19th 1904 and near the Lugogo-River, February 1st 1914.

Leptoptilos crumenifer (LESS.) — The Marabou is a very common bird on the savannas and steppes of Middle-East Africa. It was very frequent on the Massai-plateau and on the Ruvana-steppe. Under usual circumstances it does rather the business of the vultures, than that of the storks. It is only during steppe-fires, locust-plagues, or if the waters of the rivers and overflows desiccate and the drying river-beds are swarming with fish that they feed as storks use to do. Otherwise they rather prefer to struggle with the crowd of vultures on some carrion.

As soon as the first vultures land on the carrion, the marabous also appear, circling high-up and after a short while they fall, with out-stretched legs, down to the carrion like parachutes, even if some of the powerful *Otogyps* and *Lophogyps* quarrel there. It was worth while watching such a fight between marabous and vultures. Sometimes they made quite a tug-of-war for some lump of meat. Usually it was the marabou who won.

Otherwise it is not a quarrelsome bird. For instance at the time of locust-plagues they get on peacefully with the crowd of white- and Abdim-storks catching locusts.

It is almost incredible what huge lumps of meat it is capable to swallow. Once I observed how it swallowed, after a long struggle, the whole spine of a serval, from which the parasite kites had already picked almost all the flesh. After such a performance it stands motionless for hours, with its neck drawn in.

The shooting of marabou is actually prohibited by hunting regulations on British territory, at least it is strongly limited. I found that the clever marabous know this very well, as during my last African expedition they confidently settled on the branches of trees near my tent. In former times, during the great freedom, they did not trust the white man so much and they really could very well guess the dangerous distance. Their bad luck was, that their extremely fine, silky lower tail-covers were formerly very much sought after. But a protection still more efficient than prohibition was the changing of the fashion, which — for the moment — dropped the use of feathers as an ornament.

When the marabou defecates, part of the excrement always gets on its legs and so the legs of the older marabou are always white-washed by the sprinkled guano.

The massai name of the marabou is „ngiranguz”.

I collected the museal specimens near Ngare Dovash, March 13th and 31st 1909.

Threskiornis aethiopica (LATH.) — The sacred Ibis is rather frequent near the waters of East-Africa. It is an inhabitant of flat territories. In the hours about noon it likes to stand on the sandbanks of lakes and rivers, in the company of most various kinds of waterfowl. Along the great lakes I often saw it walking amongst cattle in the company of Cattle Egrets. In the hours of dawn and twilight it often visits the plantations along waters and there it hunts locusts and frogs. It is not a cautious bird and usually lets us come within gunshot range.

I collected the museal specimens at the following places: Arusha Chini, May 28th 1904, Mtoya Kifaru, January 13th and 17th 1909 (two specimens), Shirati, February 28th, March 1st and May 15th 1909.

Hagedashia hagedash (LATH.) — The Hagedash Ibis is very common on savannas along waters in East-Africa and Uganda. They fly — with their loud „Ha-Ha” call — early at dawn and at twilight from and to their roosting place. Their call is often heard also during the day, — the most unpleasant bird-voice, as it is thought all over Africa. Their life-habits are like that of our Glossy Ibis. After steppe-fires it usually also appears on the burnt places. It never goes very far from waters. I usually saw them in pairs.

The localities of the museal specimens are: Arusha Chini, January 24th 1904 (three specimens), October 15th 1905, Shirati, February 4th 1909 (two specimens).

Plegadis falcinellus (L.) — I saw our Glossy Ibis mostly in the company of Hagedash Ibis.

I collected the museal specimen near Shirati, March 6th 1909.

Platalea leucorodia archeri NEUMANN. — Our Spoonbill is a constant and very common bird near the Red Sea and on its islands. They had a large breeding colony

in mangrove-wood of Fatmah-island, near the breeding place of *Egretta gularis* and Rosy Pelecans. From there I took a clutch of eggs on July 11th 1907.

I collected the museal specimen near Assab, June 7th 1907.

Platalea alba (SCOP.) — The life-habits of the Red Legged Spoonbill are absolutely like that of our Spoonbill.

I collected the museal specimen at the overflows near Arusha Chini on May 28th 1904.

Plectropterus gambensis (L.) — The largest of the African wild geese, the Spurwing Goose occurs everywhere along the standing waters of East-Africa near the quiet bays of the great lakes, usually in company of Egyptian geese and Whistling Teals. They often severely tithe the shambas of the natives, especially their plantations of sweet potatoes. It also likes to settle on branches of dry trees. It is a cautious bird and rarely lets the hunter come within gun-shot range.

I collected the two museal specimens, one ♂ and one ♀ near Shirati, on February 17th and April 25th 1909.

Dendrocygna viduata (L.) — The Whistling Teal were to be found at every water and swamps of the territory of East-Afrika which I have explored. Towards evening and at dawn they fly in large groups to the shambas of the natives, to feed. They like to be in company of other Ducks and Egyptian geese. I did not often see them on open waters. Their voice is a whistling note.

I collected the museal specimens near Shirati, February 4th (four specimens) and February 19th 1909.

Alopochen aegyptiacus (L.) — I found the Egyptian goose near every water of East-Africa. The first pair of Egyptian geese was for me an unusual sight, when I saw them settling on branches of a tree. During day-time they usually stay on sand-banks of lakes and rivers, when a lot of other water fowl joins them. They do not care much about crocodiles sunning themselves close to them, though they always keep the safe distance. The venison of the young ones gives a very fine roast.

I collected the museal specimens near Arusha Chini, April 6th 1904, Gibdo, April 20th (two specimens) and May 3rd 1907 quite a young one, Shirati, February 11th, 18th, 22nd and 28th 1909.

Sarkidiornis melanotus (PENN.) — The Comb Duck was everywhere very common in the swamps and pools along the shores of Victoria-Nyanza. It also occurred everywhere in Uganda. In the evening and at dawn they repeatedly visit the shambas in company of Egyptian geese and then it is very easy to get a shot at them. They like to settle on the protruding branches of dry trees near the quiet bays of the lakes.

I collected the museal specimens near Shirati, on February 1st, 7th, 22nd and 24th 1909.

Anas sparsa EYTON. — The Black Duck is a bird of the creeks of hilly forests. During daytime they are usually under the cover of the foliage bending over the water. I mostly started them from there. When disturbed, they do not leave the creek, but soon fly back there. I never saw them in company of other Ducks.

The museal specimens I collected near Arusha, September 26th and 27th 1905 (two specimens).

Anas punctata BURCHELL. — The Hottentot Teal is the smallest of East-Africa's wild ducks. It does not like open waters. It strolls in smaller groups of 4 or 5. It likes those swamps very much that remain after the rainy season.

I collected the museal specimen near Shirati, February 11th 1909.

Anas erythrorhynchus GM. — The Red-Billed-Duck is the most common duck of East-Africa. It very much likes the quiet bays of great lakes and the small, swampy lakes left after the rainy season. It is often in the company of other water-fowls.

The museal specimens I collected at the following places: Boma-Gombe, April 25th and 30th, Lake Iippe, December 15th 1903 and Shirati, February 17th 1909.

Serpentarius serpentarius (MILLER). — The secretary-bird is the characteristic species of tropical Africa's steppes and thin savanna-woods. I very often met this interesting bird as it crossed its hunting ground, walking — usually in pairs — and looking right and left. The Secretary bird is believed to be a great destroyer of snakes and therefore the international hunting law prohibits its shooting and it can only be shot or caught with special licence. But the Secretary bird does not trust

the protection given by the law and is infinitely cautious, so that it very rarely let us come even within rifle-shot-range.

It was always with great interest that I watched this long tailed, finely crested „eagle with heron-legs” as it hunted amongst the bushes and though I often saw that during its hunt it killed a rodent lizzard with its long legs, I never witnessed the scene I saw in some natural history books, that the secretary bird, with its crest ruffled, fights for life with a huge African Cobra, the *Naja nigricollis*. As for myself, I do not believe that the Secretary bird is such a great destroyer of venomous snakes, as it is told by the old special literature. I, for instance, having shot several Secretary birds with the Governor's permission, and inspected the contents of their corps, never found there remains of venomous snakes, but mostly egg-shells and the remains of birds, mice and lizzards.

Later on I held five specimens in captivity. These did neither attack larger venomous snakes, though they gladly killed and ate smaller, non-venomous ones. So much is certain, that if we would consider the circumstances in our country, it would do enormous damage in our gamebirds, but in Africa the guinea-fowl, francolin and other game-birds are so numerous, that it would be a pity to pursue this fine and interesting bird.

On places covered with high grass or on spaces with Elephant-grass it can be seen only after savannafires. Such newly burnt places it at once seeks, together with birds of most various species, as the freshly burnt savanna offers to all of them plentiful and easily found food.

It does not easily decide itself to fly, but always tries to walk away from its suspected enemy. It is not a persistent flier.

I collected the museal specimens on the Ruvanasteppe, June 6th and July 17th 1910 (two specimens).

Milvus m. migrans (BODD.) — I shot one specimen of Black Kite from a group of parasite kites near Moshi, February 18th 1903.

Milvus migrans aegyptius (GM.) *et* **Milvus migrans parasiticus** (DAUD.) — Leaving Suez-Canal the traveller soon gets to know the parasite kite. Hundreds of them can be seen in the seaports, as they sit on antennas and on the ropes drawn between shipmasts, watching the off-fall poured out of the ships and fighting for it with seagulls.

They were permanent guests at my collecting camps in the steppe and savanna. We scarcely pitched the tents, they immediately appeared, as well as in the moment, when the shot game collapsed. It is the messenger of the large winged carrion-eaters, the swarms of vultures and marabouts, just as well as of the jackals and hyaenas. Its impudence is illimited. For instance it often happened, that while I was preparing birds in the shade of a tree, they robbed the corpse of the skinned bird, loudly screeching, from my camp-table. In the war-prisoner's camp in India they made us laugh frequently, robbing the piece of meat which the careless prisoners had just brought from the kitchen.

The locality of the collected specimen is Boma Gombe, February 13th 1903.

Accipiter melanoleucus, A. SMITH. — The Black Sparrow-Hawk has very similar habits to our goshawk. The birds of the galeria-forests, as soon as they sight him, get very alarmed, just as our jays and rooks do when they see a goshawk appearing somewhere.

Though I collected only a single specimen, it cannot be called rare, because I often met an odd specimen about the forest of the hills, when, because of some reason, I could not shoot it. When I brought the collected specimen into my camp, my men said it was a dangerous robber of their poultry.

I collected the museal specimen near Ngara-Dovash, July 21st 1909.

Accipiter tachiro sparsimfasciatus (RCHW.) — It is fairly common in the woods along mountain creeks. The museal specimens I collected in Kibosho, February 27th and March 27th 1903 and September 2nd 1904.

Accipiter minullus tropicalis RCHW. — The Little Sparrow Hawk is a great enemy of the song-birds. Its presence is often signalized by the noise of the songbirds pursuing it. It is mostly the drongos which pursue it. The localities of the collected specimens are: Arusha Chini, January 24th, February 20th, March 30th and April 7th 1904 and Lettema-mountains, January 30th 1904.

Melierax musicus poliopterus CAB. — It has a quaint voice, not at all like the screech of raptorial birds, almost pleasant to hear, which gave it the „singing hawk” name. It hunts in lurking fashion.

I collected the specimens near Arusha Chini, February 22nd 1904 and near Lake Jippe, December 10th 1904.

Melierax metabetes HEUGL. — This bird, like the *M. poliopterus*, also gets its prey mostly lurking. Its legs, cere and parts around the eye are red.

I collected the two specimens of the Museum on the Margebla Oasis, January 20th and March 18th 1907.

Melierax gabar (DAUD.) — Of this fine, dwarf goose-hawk I only collected a single specimen near Lake Jippe, October 16th 1903.

Buteo rufofuscus augur RÜPP. — The Augur Buzzard lives mostly in valleys of mountainous country. It gets its prey instead of circling, like our Common Buzzard, settling on the tress between the shambas, lurking for it. Its food is greatly varied; it feeds on mice, lizzards and larger coleopterae.

The localities of the collected specimens are: Kibosho, March 2nd 1903 and Moshi, July 4th 1905.

Buteo buteo vulpinus (GLOGER) = (*Buteo desertorum* Daud.) — I collected the Steppe-Buzzard only in a single specimen, in Kibosho, November 6th 1904.

Kaupifalco monogrammicus monogrammicus (TEM.) — It lives in woods near creeks and rivers. It is usually perched on the lower branches of foliageous trees where it lurks for its prey, which consists of insects, lizzards and smaller mammals. A sluggish flyer and not at all cautious.

I collected it at the following places: Lake Jippe, October 16th 1903, Arusha Chini, January 31st 1904 and Ngare Dovash, July 29th 1909.

Lophaëtus occipitalis (DAUD.) — The Crested Eagle was to be found in all the parts of East Africa which I explored. It usually chooses single trees standing between shambas situated near woods, namely maize and millet-field and settling on a protruding branch it lurks, with fixed eyes and motionless for hours and hours for its prey, which consist of mice, lizzards and larger insects. If it notices some movement in the proximity of its lurking place it rises a little and watches it with an outstretched neck, while its fine crest bends forward almost to the tip of its beak.

The natives thought it, at several places to be a robber of poultry, but I never have experienced this.

The data of the collected specimens are: Kibosho, March 2nd 1903 and Boma Gombe, April 16th 1903.

Stephanoaëtus coroonatus (L.) — This fine eagle I saw on two occasions in the broad galeria woods of Ngare Dovash. The first time I did not succeed in getting near to it. It was just hunting for monkeys. After a few days, on the same place, I was, well covered, lurking for wood guinea-fowl, when a large bird of prey settled on a tree near me. I at once recognized the Crowned Eagle I had seen a few days ago and shot it with my shot-gun. It seemed to be a strolling specimen, because all the time I had been there I only saw this one specimen which I shot on July 20th 1909.

Polemaëtus bellicosus (DAUD.) — The two African Eagles, the Crowned and the Martial Eagle are to be found in Tropical Africa, but nowhere are they frequent. On the territories I have explored they were very rare, so that during my several years' stay in Africa I saw only a single specimen of both the Martial Eagle and of the Crowned Eagle. I succeeded to secure both for the collection of the Museum. I cannot say much about its life-habits, as I have shot the collected specimen at twilight, returning from a day after buffaloes, from a protruding branch of a giant tree.

According to the verbal communication of my fellow-collector and brother-in-law EDMUND KOVÁCS the Abessins equally value the claws of both the Martial Eagle, just as those of the Bateleur, as a medicament and a protecting dawa.

The only collected specimen I shot near Mujenje, July 13th. Neither before, nor after this date did I ever see more specimens.

Aquila rapax (TEM.) — This eagle was fairly common in the neighbourhood of Kilima Ndjaro, though its latin name does not fit well, because it is not such a daring robber, as we might think it after its name. It gladly takes to carrion too, if this is

not yet covered by larger vultures. During locust-plagues its causes great havoc amongst the swarms of locusts.

The data of the museal specimens are: Kibosho, February 19th 1903, Marti, January 5th 1906 and Ngare Dovash, September 10th 1909.

Haliaeetus vocifer vocifer (DAUD.) — I find the Fish Eagle near all waters of East-Africa, where fish are abundant. Perched on tress near the water it is sitting motionless for hours and sometimes does not care at all if a canoe gets near its tree. This White-tailed Eagle with its white head, neck and chest, almost exclusively feeds on fish. I often observed that the crowd of water-fowl settled on a sandbank took no notice of this eagle sitting on a trunk near the water, but were arranging their feathers in perfect security.

I often also saw the Fish Eagle settling on carrion, naturally only when the crowd of large vultures did not cover it yet. But the Neophrons flew hurriedly asunder, when a Fish Eagle dropped between them.

Near Lake Jippe I witnessed a very interesting spectacle. My attention was drawn to a great buzzing sound. I would have certainly believed to hear the buzzing of a 'plane, if in those times aeroplanes would already have existed. In great light two large birds were fighting, clinging to each-other and turning around themselves like a reel, until one of them, knocked down, fell. When I hurried there, it took to its wings again and only then I saw that two Fish Eagle had been fighting in the air.

I collected the museal specimen near Arusha Chini, May 13th 1904.

Torgos tracheliotus nubicus (H. SMITH) — Its range spreads from south of the Sahara to the whole Africa. It is most frequent on such savannas, which are rich in game and where the large animals of prey are abundant. The lions are the natural purveyors of carrion to the Nubian vultures. They see the signaling of the parasite kites, which are present everywhere from incredible distances and notice everything; then they fly from all directions to the carrion. The noise of such a vulture flying to the carrion reminds you of the whistling of a shell.

They cover the carrion in a few seconds and its vicinity soon becomes the battlefield of the vultures and marabouts, tearing the carrion. They make a regular tug-of-war for a piece of extracted bowel or a lump of meat. The marabouts usually only get the results of such tugs-of-war, as their beak is not so fit to tear the meat off, than that of the vultures. This army of insatiable stomachs gets quickly the best of such a carrion. For instance, if the hunter leaves a shot zebra or an antelope of the same size unguarded, half-an-hour later he will only find his booty's scattered bones and torn hide. The game shot in covered places, which the kites and vultures circling high-up can not sight, is left untouched, same as the carrion of a killed Elephant or Rhino, even in open places, if it is not already attacked by Hyaenas, because not even their mighty beaks can cut the thick hide of these animals. The lion, for instance, pulls his prey into some thickness, to protect it from vultures, while the Leopard hangs it on some branch of a tree near-by. The latter preserves its prey in this way usually from the Spotted Hyaenas.

These birds reliably signal the presence of a Lion or a Leopard or some Spotted Hyaenas at the carrion to the experienced hunter, because in this case vultures are perching on the neighbouring trees. If men are near the carrion, they circle high-up above it. Jackals dare to come nearer to the carrion only when the vultures have done their work.

The bare neck and face of these vultures get a lively red colour, when they fight on the carrion.

I collected the museal specimen near Wadi Gibdo, April 22nd 1907.

Trigonoceps occipitalis (BURCHELL). — South of the Sahara the White-headed Vulture occurs everywhere. It is most frequent on the savannas rich in game, because there are always carrions or rest of carrions to be found. Together with the large Nubian Vulture, it is, amongst the other carrion-eaters, the strongest and largest. But even so have they to fight hard battles for every lump of meat with the *Pseudogyps* covering the carrion in great numbers, as well as with the Marabouts which came to it. Both kinds of large vultures respect the mighty bill of the Marabouts.

I shot it near Wadi Gibdo, on the carrion of a striped Hyaena, May 22nd 1907.

Pseudogyps africanus (SALVAD.) — It is the most common vulture of the savannas of Middle-East-Africa, rich in game. It is the first at the shot game, at the carrion,

and often precedes even the parasite kites. Though it greatly respects its two larger relatives, its greediness gets the best of its fear and it tries to fight for its part. It can consume incredible quantities of meat. If it has gorged itself full, it squats, with its wings let down and almost fainting, on some protruding branch of a tree near-by. Some of them gobble themselves so full, that they even cannot fly up, but settle on the ground or on some termite-hill, for a digesting siesta.

Near Ruvana, at a wood of *Borassus* palms, they had a very crowded breeding place. In the bases of their nests many weaving-birds were breeding.

The well-developed young specimen of the Museum I collected near Ngare Dovash, August 15th 1909.

Necrosyrtes monachus pileatus (BURCHELL.) — The Hooded Vulture is the vulture of Tropical Africa. There it is just as frequent as the White vulture is in North Africa. As soon as they see the circling of parasite kites which had noticed a shot game or some carrion, the Hooded Vultures are there at once, that they should get their part before the great vultures and Marabous arrive. Carefully, with crow-like steps, they come near to the carrion, to get at the softer parts of it, pick its eyes. Their weak beak is not fit for more than this.

When the greater species of vultures arrive, they go aside for a few steps, waiting for the favourable moment to get one or two lumps. If the Bateleur or the Fish Eagle drops on the carrion, they fly asunder, frightened. But I saw, that they do not respect very much the jackals approaching the carrion.

I collected the museal specimens near Moshi, March 11th 1905 and near Ngare Dovash, August 13th 1909.

Neophron percnopterus (L.) — In the provinces near the Red Sea the Egyptian Vulture lives in incredible numbers and does a very useful work in cleaning-up carrion. It is almost a domestic animal at the villages of the natives and the native-quarters of the towns. There they feed — besides on carrion — mostly on human excrements, for which they fight hard battles with the paria-dogs.

After high-tide they circle above the sea-shore and grab the dead fish and carrions of other sea-animals thrown to the shore. We can always find a few vultures near the settlements of shark-fishers and collectors of sea-cucumbers (*Holoturoidea*.)

The two museal specimens I collected near Assab, February 9th and March 12th 1907.

Circus macrourus (GM.) — I shot the Pallid Harrier above the papyrus swamps of Mtoya Kifaru. I remember, that we had to look for it a long time in the high papyrus, until we found the shot bird.

The date of the collection is January 17th 1905.

Circus aeruginosus (L.) — At the same place and on the same day, I shot near the papyrus swamps of Mtoya Kifaru the other species, our Marsch-Harrier.

Circus ranivorus ranivorus (DAUD.) — I collected a single specimen of the African Marsh Harrier on August 7th 1913 near a little sedgy pound, near Mujenje. Its sailing flight is like that of the other Harriers.

Terathopius ecaudatus (DAUD.) — The Bateleur is an inhabitant of the East-African savannas. It prefers more open places. It was very frequent on the savannas and steppes around Victoria Nyanza; this is a bird of prey with a wonderful flight; I think it is the most beautiful eagle.

The Bateleur is a fairly cautious bird and it is hard to get within shot-gun range to it. Sometimes it also alights on carrion, if this is not covered with a crowd of large vultures and Marabous. It keeps its roosting tree fairly well and there you can get a shot at it.

I caught several Bateleurs for our Zoo in traps wrapped in fibres of sanseveria. Three of these were fully coloured specimens.

I shot the old, not yet fully coloured specimen on Ruvana-steppe, June 5th 1910.

Circaetus cinerascens J. W. MÜLLER — This Snake Eagle must be a fairly rare bird, because during my collecting expeditions I only saw the two collected specimens. I collected both near Arusha. In the crop of the one I collected on September 25th I found a snake about 70 cm long. The other one I shot on October 25th 1905.

Pandion haliaëtus (L.) — During the winter months the Osprey was very frequent on the islands of the Red Sea. The museal specimen I collected near Assab, February 23rd 1907.

Poliohierax semitorquatus (A. SM.) — This tiny dwarf-falcon must be very rare

on the territories I explored, because I saw only the one specimen I collected near the Lettema-mountains, May 6th 1904.

Falco peregrinus perconfusus COLL. ET. HART. This fine falcon, very similar to our Peregrin Falcon, but a good deal smaller, I collected but in a single specimen. I do not remember ever having seen another one.

Data: Lake Jippe, November 6th 1903.

Falco cuvierii A. SMITH — The range of this fine little falcon, the flight of which somewhat reminds of that of the Hobby, is very wide. This is also shown by the great distance between the places where I collected this species.

One of the museal specimens I collected near Arusha, October 20th 1905, the other near the virgin forest of Bugoma, March 17th 1926.

Falco ardosiaceus VIEILL. — This Falcon I collected only in a single specimen. I never saw African Falcons fly over, like our kestrel do.

I collected the museal specimen near Shirati, February 15th 1906.

Falco tinnunculus carlo (HART. ET NEUM.) — This Kestrel, collected in a single specimen, was defined by DR. MADARÁSZ as *Cerchneis neglecta* (SCHL.). At first sight it is misleadingly similar to our kestrel.

The data of the two collected specimens are Arusha Chini, March 31st 1904 and Shirati, January 25th 1909.

Francolinus coqui hubbardi OGILVIE-GRANT. — This fine francolin I collected on the territories near Victoria-Nyanza. It is the inhabitant of savannas covered with higher grass. Its life-habits are like those of the other francolins.

Francolinus sephaena grantii HARTL. — This small francolin is member of its genus with the widest range. It occurs everywhere on the savannas from Kilima-Ndjaro to Victoria-Nyanza, Uganda and Unyoro. Those of Kilima-Ndjaro show a great difference in colour from those of Uganda.

The data of the collected specimen: Moshi, Arusha Chini, Lettema-mountains, Ngare-Dovash, Ruvana-steppe and Mujenje.

Francolinus levaillanti mulemae OGILVIE-GRANT. This fine, yellow-legged francolin was found in fairly great numbers around my camp near Ngare-Dovash. It lives on savannas covered with high grass and scattered bushes. It is a fairly loud bird, especially after rains.

The dates of the museal specimens are: Ngare-Dovash, July 9th and July 11th 1909.

Francolinus ieterorhynchus dybovskii OUST. — I collected the museal specimen near Katve (Uganda) on November 13th 1913. It is a very loud bird and in this it is similar to the *Ptersistes*.

Francolinus hildebrandti CAB. — This francolin was fairly frequent in the vicinity of Kilima-Ndjaro. It was to be found quite to the brim of the virgin forest.

I collected the museal specimens in Kibosho, July 18th 1904, Moshi, July 18th and July 22nd 1903 and near the Lettema-mountains, May 3rd 1904.

Francolinus squamatus ssp. — These francolins I found in the cultivated zone of Kilima-Ndjaro, in the thicknesses of weed grown on abandoned shambas and in the deforestations of the virgin forests, prepared for shambas. They were much rarer than their smaller relations, the *Francolinus grantii*. (MADARÁSZ determined the specimens for *Fr. squa. schuetti* CAB.)

Its name in Kisuaheli, like that of all the francolins, is „Kwale”, imitating its voice. The natives hunt it with arrows having blunt points. They also catch them in loops made of gnu-hair.

I collected the museal specimens near Kibosho, September 10th and 22nd 1904.

Francolinus squamatus zappeyi MEARENS. (*Francolinus dowashanus* MAD.) — This fine francolin was fairly frequent near my camp of Ngare-Dovash in the thick grass of the savanna. Its life-habits are like those of the other francolins. It avoids the agha-woods, — at least I never saw them there.

The first collected specimen, August 23rd 1909, was described under the above name by DR. JULES MADARÁSZ in the year 1915.

Pternistis rufopictus RCHW. — Like all barenecked francolins this one also lives on spaces covered with bushes and high grass. This one too, like the other *Pternistes*, gives its far-sounding call at dawn and twilight from the top of termite-hills.

The two museal specimens I collected on the Ruvana-steppe, July 8th and July 27th 1910.

Pternistis afer cranchii (LEACH.) — This Barethroated Francolin is like all the *Pternistes*, the inhabitant of savannas covered with high grass. At dawn, as well as towards evening and after showers the cock, usually from the top of a termite-hill, gives his hoarsely cracking call. Therefore the Kisuaheli name of the bare-necked francolin is „quare”.

The neck of the young is covered with dirty-white feathers.

The museal specimens I collected near Ngare-Dovash, August 1st, 2nd, 11th, 21st and 29th 1909.

Pternistis leucocephus infuscatus CAB. — I collected it on the savanna below the Kilima-Ndjaru, near Moshi June 21st 1903.

Coturnix delegorquai DELEG. — This quail, with mottled feathers, occurs from time in the plains in huge numbers. In May 1904 they covered the plains near the Lettema-mountains in thousands, so that my men caught them with butterfly-nets.

I collected the museal specimens near Moshi, on Boma Gombe (Massai-steppe) and around the Lettema-mountains.

Excalfactoria adansonii (J. et E. VERR.) — This smallest, beautiful, African quail I only met near Mujenje. I shot several of them, but I succeeded to prepare only two, as even the half-cartridges smash them too much; besides, they were very fat too.

They are very hard to walk up to flight, and even then they fly only for short distances, then dropping in the grass again. Their call is similar to the one of our quails.

Mujenje, August 25th and September 14th 1913.

Numida meleagris toruensis NEUM. — Around my camp in Mujenje, as well as everywhere in the neighbourhood of the natives' plantations in Uganda and Unyoro, the Tufted Guinea-fowl was to be found in very great numbers. At dawn and towards evening they left the Elephantgrass of the savanna-wood and came to the shambas in flocks, all the time emitting their call, wellknown from poultry-yards. Their call always betrayed their whereabouts and it was very easy to shoot the quantity necessary for the kitchen.

Their alarm-call given after having settled on branches signaled four-footed foes or snakes, In such cases, if you stood well covered, you could easily shoot several of them with the pea-rifle, before they got off.

During my last two African expeditions I found their number had already greatly decreased. After the first World War many natives took their licence for shot guns and afterwards they hunted the „Kanga” professionally. In the morning they carried strings of them on bicycles and motorcycles to the town-market. Using their dogs, they drove the guinea-fowls to the trees, from where they managed to get half-a-dozen down sometimes with a single gun-shot.

The museal specimens I collected at the following dates: Mujenje, July 20th, 31st, August 1st, 2nd, 3rd and 9th 1913, young specimens, July 20th a more developed specimen, less developed specimens on July 22nd and three specimens on July 31st.

Numida meleagris reichenowi (O. GRANT). Reichenow's Guinea-fowl was frequent on the savannas at the foot of Kilima-Ndjaru. At dawn and towards evening they walk with loud „Kang-Kang”-s (which gave their Kisuaheli-name „Kanga”) in large flocks to the shambas and to water.

On places where water is scarce they sometimes gather in huge numbers. On the quite uninhabited wilderness around the Oliondo-hill, where water is very scarce, I saw going to the water-ponds gathered in groups of several hundreds. Around Lake Jippe the natives put „Pombe” (beer fermented from sugar-cane) in front of the places where they go to drink. The Guinea-fowl — so it has been told me — greedily take to the „pombe”, and getting intoxicated are easy to pick up.

I collected the museal specimens near Moshi, July 31st 1903, on the Massai-steppe, September 26th 1905 and near Lake Jippe, October 31st 1903.

Guttera eduardi suahelica NEUM. — In Uganda's galeria-woods especially on places where the wood was broader and more extended, I found the Crested Guinea-fowl in fairly great numbers. It is a cautious, very watchful bird. I often heard their call, signaling some enemy. They were especially loud, when they noticed a Serval or a Leopard. I more than once succeeded to shoot a Leopard having been warned by their call „Kororo”.

I collected the museal specimens in Ngare-Dovash, July 20th, 31st and August 9th and 17th., 1909.

Guttera pucherani (HARTL.) — The Crested Guineafowl are the inhabitants of virgin-forests of high tress along the rivers. They are not as frequent as the Tuffed Guineafowl and much more cautious too. It is only following theri call that we can shoot an odd specimen.

I shot the museal specimen near Moshi, in the galeria-wood of the Little River Rau, August 9th 1903.

This fine coloured Vulturine Guineafowl did not extend in Tanganyika to a large area. South of the Lettema-mountains and Pangani-river it was not to be found any more. Its western limit is the eastern edge of the East-African Great Valley. To the West of the Great Valley I did not find it anywhere.

Where the Vulturine Guineafowl occurs, we are sure to find the characteristic antelope of the bare and dry savannas of Northeast-Central Africa, the Giraffe-gazelle „Gerenuk” (Lithocranius walleri).

Its life-habits are similar to those of the Tuffed Guineafowl. It is a careful, cautious bird. Its Kisuaheli name, like that of the Crested Guineafowl is „Kororo”.

The dates of the museal specimens are: Lettema-mountains, May 18th, June 5th 1904 and Pangani-River, May 8th, 12th and June 8th 1905.

Turnix sylvatica lepurana (A. SMITH). — The Button Quail prefers the savannas with a dry, sandy soil, short grass and low bushes. It very hardly decides itself to fly and even then it flies only for a few yards, just to throw itself into cover again, where from it is very difficult to make it start again.

The two museal specimens I collected on the Ruvana-steppe, August 1st and 28th 1910.

Balearica pavonina gibbericeps RCHW. — This fine Crowned crane is very abundant on the lowlands along the waters, on the savannas, as well as on the treeless steppes of Cntral East-Africa. It is especially frequent on the south-eastern shores of Victoria-Nyanza; that is why the English living in those parts call it „Kavirondo crane”, because those territories are inhabited by the Kavirondo tribes.

The Crowned Crane's life-habits are similar to those of other cranes. Its food consists of different seeds, tender grass, buds, locusts, lizzards, mice etc. Early at dawn they fly with loud „O-ran, o-ran” calls to their feeding areas and back in the evening.

I first met the Crowned cranes at one of the water-ponds of the Massai-steppe. Shooting the first-one — in the year 1903 — gave me a very queer feeling, because the shot bird's mate came and settled on the spot; I shot it too.

The specimens caught young are easily reared, they become tame very quickly and stand captivity well. I wanted to take a snapshot of such a pair of tame cranes, which were grazing free on the shore of the Nyanza, in Kisumu (one of the ports of Victoria-Nyanza and then the terminus of the Uganda railway). I took with me on that expedition, in 1913, a reflex camera, which was a very noisy instrument. The noise of the mirror falling back made the cock of the pair furious, it flew up and kicked me with both its legs on my tropical helmet.

I reared several young of the Crowned Cranes for our Zoo. I was able to observe one of the most charming scene of the friendship of different animals between each other, watching a dawning Crowned crane and a young Dwarf-gazella. These two tiny creatures were soon great friends. It was a very charming scene when the tiny gazella kid attacked — like a ram would do — its fluffy friend. The little bird repelled this mock-attack with beak and wings. When they got tired of this play and the kid lay down, the little crane picked the parasites on the head and ears of its small friend, then it lay along its play-mate. When the little Crested crane grew along, then — with childish clumsiness — it performed the stately mating-dance of the Crested cranes in front of its resting friend. On these occasions they always reminded me of the tiny children of some of the warlike native tribes, when they imitated the movements of their warriors' dance.

The data of the collected specimens are: Boma Gombe (Massai-steppe) April 26th 1903 (two specimens), Shirati, February 1st and 22nd 1909 (two specimens) and Ruvana-steppe, April 16th 1910.

Limnecorax flavirostra (SWAINSON). — The Black Crake runs easily on the seaweed-

covered waters of the swamps with the help of its disproportionately long toes. It was fairly frequent everywhere. Their lifehabits are similar to those of our Moorhen.

I collected two specimens near Arusha Chini, March 4th 1904, and near Shirati, January 29th and February 7th 1909.

Sarothrura antonii MAD. et NEUM. — This interesting, fine bird came into my collection in a very strange way. I had been leading the hunting expedition of MR. BALINT FERNBACH, from Victoria-Nyanza right to the Indian Ocean. A great part of our way led through inhabited country, the territory of the nomad Vandorobbo hunters, who fear white men and avoid them.

Our roadless way led us to the Edassakera plateau, stretching around the Oliondomountains. There we pitched our tents, because the country looked very promising. There were plenty of Rhinos, Caffer, Buffaloes and old Elephant traces showed that the greatest mammal of our Earth also visits this territory, perhaps never before trodden by a white man's foot.

On January 20th 1909, at dawn, looking for Elephant and Buffalo-traces, we crossed a clearing, when a bird got up from below our feet, which resembled the Moorhen's flight; after flying a few yards it almost dropped into the high grass.

Seeing the flying bird I at once thought to recognize the never-yet-seen *Sarothrura*, remembering the referring description in Prof. A. REICHENOW's book. That day I did not even think of collecting birds, so we only had our rifles with us. But wanting to have a better look at the bird, I tried to make it get up again and therefore I sent my escort to the place where the bird alighted. We were lucky: one of the men trod on the bird.

This was the only bird which came into my collection in such way. I cannot tell anything about its life habits, as during my collecting expeditions this was the only specimen I ever saw. It probably lives a hidden life in the immense grass, giving a safe cover. Neither did I ever hear its call.

I must mention yet, that on Page 197, T. II. of JAMES LEE PETERS' „Check-List of Birds of the World”, (published in 1934) the following words refer to this bird: „Known only from the type”.

Gallinula chloropus (L.) — I collected our green-legged Moorhen near Arusha, October 20th 1905.

Fulica cristata GM. — The African Coot was fairly frequent in the swamps of the inundation-areas, covered with aquatic plants, and in the swampy bays of the lakes. Their life-habits and their flight is similar to that of our Coot.

The museal specimens I collected at the following places: Boma Gombe, May 10th 1903 and Shirati, May 2nd 1907.

Choriotis kori struthiuncul (NEUM.) — The Kori Bustard is the inhabitant of the very thin savanna woods and the steppes. They are usually seen alone or in pairs, walking over their area with slow, formal paces, bowing forward and backward with their head at every step. They are very cautious and scarcely to be approached to shot-gun distance. The Boers of South-Africa call them „gom pauw”, gum-peacock, as they are told to be fond of picking the resin quelling out of the Parasol-acacias. It not only lives on vegetable food, but, like our great bustard, takes insects, lizzards, mice, etc.

After great locust-plagues or immediately after a steppe-fire they gather in greater numbers. Anyhow, such places are the meetings of most various birds.

The specimen which is to be seen at the African Exhibition I collected on the Ruvana-steppe, September 1911.

Lophotis ruficristata gindiana (OUST.) — It is the inhabitant of steppes where water is very scarce. I usually found it alone. Its life-habits are those of the other lesser bustards.

I collected the museal specimens on the savannas near the Lettema-mountains, January 28th, April 13th and June 1st 1904 and near Pangani-river, July 13th 1905.

Eupodotis senegalensis canicollis (RCHW.) — It is fairly frequent on the savannas around Kilima Ndjaro. After the great savanna fires, on the spots spared by the fire, one could always make a few of them get up. At these occasions they always could be approached at easy shot-gun range.

The two museal specimens I collected near Lake Jippe, October 13th 1903.

Lissotis melanogaster (RÜPP.) — I collected the black-bellied bustard west of the East-African Great Valley on the Ruvana-steppe and Uganda, near Mujenje. Its life-habits are similar to those of the other lesser bustards. In the collected specimens I found a suprisingly large number of intestinal worms.

I collected the specimen on Ruvana-steppe on February 20th 1901, those of Mujenje on July 13th and August 9th 1913.

Lissotis hartlaubi (HEUGL.) — It is fairly common on the savannas of the plains around Kilima Ndjaro. As all bustards are, it is a very cautious bird, but in high grass it may often be approached to shot gun range. They were also full of intestinal worms.

The data of the collected specimens are: Arusha Chini, February 5th 1904, Lettema-mountains, June 4th 1904, Mtoya Kifaru, January 23rd and 24th 1905.

Microparra capensis (A. SMITH). — This tiny Lesser Jacana with its disproportionally long toes almost resolved the problem of walking on the surface of water. It is true that on places where it lives, the surface of the water is always covered with aquatic plants, even where this surface seems quite clear, because the seaweed and algae are scarcely to be noticed. It is hard to force it to take to its wings.

I collected the museal specimens near Lake Kioga, near Lali, on March 23rd and 24th 1914.

Actophilornis africanus (GM.) — The African Jacana prefers quiet, standing waters woven through and through with aquatic plants of the swamps. I found it only at such places. It is a lively, nice bird. From time to time it lifts its wings and keeps them held-up, so that it looks like if the waves of the breeze-troubled water would turn up the leaves of the water-lilies.

I collected the museal specimens near Arusha Chini, March 3rd and 7th 1904, Lake Jippe, December 10th 1904 and Shirati, January 18th 1909.

Rostratula benghalensis (L.) — The Painted Snipe flies sluggishly, like the Cornerake does, not like our zig-zaging snipe. I collected only a single specimen, near Shirati, May 16th 1909.

Haematopus ostralegus L. — I think that the Oyster-Catcher is a permanent resident of the Red Sea, because I collected two females there in July among other museal specimens. It cannot be said frequent. It is an infinitely cautious bird.

Three of the museal specimens I collected in Assab, March 13th, July 14th and 29th 1907.

Stephanibyx lugubris (LESSON). — This lapwing is not as frequent as the *St. coronatus*. I collected only a single specimen, near Mtoya Kifaru, February 2nd 1905.

Stephanibyx coronatus (BODD.) — The Crowned Lapwing is the „evil bird” of the hunter of big-game. At its plaintive alarm-call the game of the surrounding area is startled at once and hurries to leave the endangered parts. The crested lapwing caused me more than one unpleasant moment, the most unpleasant during my last African expedition. It happened in the Province of West-Nile, going after Elephants. Early at dawn I tried to stalk a smaller group of Elephants, which was preparing to retreat in the papyrus swamps of the Nile, so I did my best to arrive there in time. Unluckily some crested lapwings noticed me coming nearer and began to make an awful noise. Hearing this, the Elephants began to increase their speed towards their safe retreat, the papyrus-swamps. I had not enough time to have a good look at the tusks and so I shot the Elephant showing the greatest tusks. It stood showing only one side and so I could see only one of the mighty tusks. My Elephant was a single-tusker. I would certainly not have shot it, if the denunciating crested lapwings did not spoil my business. The tusk of my single-tusker Elephant bull is now the property of the Natural History Museum.

I often also saw the crowned lapwing on waterless savannas. It is very common everywhere on the savannas of East-Africa.

I collected the museal specimens at the following places: Boma Gombe, March 12th (two specimens) and April 19th 1903 (two specimens), Lettema-mountains, January 9th 1904, Mtoya Kifaru, July 8th 1904, Arusha Chini, December 29th 1903 and Ruvana-steppe, July 2nd 1910.

Hoplopterus armatus (BURCH.) — This small lapwing was very frequent around the pools in the neighbourhood of Kilima Ndjaro. It was the watchman of the swamp's

water-fowl. It signaled the approaching hunter with its alarm-call, but as for itself, it was not cautious at all.

I collected the museal specimens at the following places: near Boma Gombe, April 19th 1903, (four specimens) and near Arusha Chini, May 7th and 24th 1904.

Squatarola squatarola (L.) — I also collected the Grey Plover on the shores of the Red Sea, near Assab, on January 16th and February 17th 1907.

Charadrius dominicus fulvus (GM.) — I collected it only in a single specimen, near Assab, March 14th 1907.

Charadrius hiaticula tundrae Lowe — *Charadrius hiaticula hiaticula* L. — I collected the Ringed Plover as well near the waters of the island, as on the shores of the Red Sea. The museal specimens I collected in Boma Gombe, May 11th 1903, Assab, January 27th 1907 and Sharati, April 21st 1910 (two specimens). According to KEVE one specimen of the latter belonged to the first, whereas the other one to the second subspecies.

Charadrius dubius Scop. — I only collected a single specimen of the Little Ringed Plover, near Assab, February 19th 1907.

Charadrius alexandrinus L. — The Kentish Plover was to be found in great numbers near the Red Sea during the winter-months.

The museal specimens I collected near Assab, on January 11th, 13th, 14th, 17th 1907 (four specimens) and on April 11th (two specimens).

Charadrius tricollaris Vieill. — I always found this fine Plover near the ponds of the inland. The data of the museal specimens are: Arusha Chini, March 5th and 7th 1904, Pangani river, May 9th 1905 and Arusha, September 22nd 1905.

Charadrius leschenaultii Lesson. — I collected on the hibernal gathering-places of Plovers and other waders on the shores of the Red Sea only one specimen, near Assab, February 3rd 1907.

Charadrius asiaticus Pall. — I collected the Caspian Plover on waters of the inland also during the winter months. The museal specimens I collected near Lake Jippe, November 3rd 1903, Ngare Olmotony (South of Arusha), December 23rd 1905 (two specimens) and Shirati, January 31st (1909 (three specimens).

Numenius phaeopus (L.) — The Whimbrel was also fairly frequent on the shores of the Red Sea during the winter months. I found that they are not as wild, not as cautious as their larger relations. I collected a single specimen near Assab, March 10th 1907.

Numenius arquatus (L.) — Our Curlew was also a very common bird on the coral- and sandbanks of the Red Sea during the winter months. It was a very cautious bird there too. True, that the one or two Italian colonists living there were greatly pursuing them.

The museal specimen I collected near Assab, February 6th 1907.

Limosa lapponica (L.) — I only collected the Bar-tailed Godwit in February, near Assab. I shot the collected specimens on February 3rd and 10th 1907.

Tringa totanus totanus (L.) — Our Redshank was also a common winter-visitor of the shores of the Red Sea. The museal specimens I collected near Assab, February 3rd and 14th 1907.

Tringa stagnatilis (BEHST.) — I shot the Marsh Sandpiper on a rice-field near Lake Jippe, December 15th 1904.

Tringa nebularia (Gunn.) — The shores of the Red Sea are the winter meeting places of northern Plovers and other waders. I collected the two Greysinks near Assab too, on February 3rd and 20th 1907.

Tringa ochropus L. — I collected the Green Sandpiper at the swamps of the inundation area near Arusha Chini, April 3rd 1904 and October 6th 1905.

Tringa glareola L. — Our Wood Sandpiper was a common bird during the winter months near the pools south of the Aequator. The museal specimens I collected near Arusha Chini, April 6th 1904 near Mtoya Kifaru, January 13th and 23rd 1905.

Actitis hypoleucos (L.) — I collected the Common Sandpiper on the Massai-plateau and on the great passing stations of our migrating birds, on the shores of the Red Sea. Data: Boma Gombe, April 18th 1903, Assab, January 13th 1907.

Arenaria interpres (L.) — I saw the Turnstone in great quantities in February on the sand-banks of the Red Sea, in the company of other waders.

I collected the museal specimens (four of them) near Assab, February 3rd 1907 and on Fatmah-island, May 21st 1907.

Gallinago media (LATHAM.) — I found the Great Snipe in pools of the inundation areas, especially on places where, before high water, there were pastures of great numbers of game. I found that they were not as large as those I shot in Hungary. I shot all the museal specimens in May. Their data are: Arusha Chini, May 10th, Pangani-river, May 16th and 19th 1904.

Gallinago gallinago gallinago (L.) — In January and February the Snipes covered in very large numbers the pools of the inundation-areas, the subsoil water swamps on the pastures of the natives and the boggy places surrounding the papyrus swamps of Victoria Nyanza. At this time of the year and on these places one can, almost at every step, start up an odd snipe, zigzagging away with its bleating call, to which call other startled snipes get up with the same call from different directions.

I took good advantage of this time — I had sufficient cartridges then — and I returned mostly with a rich bag, to the great pleasure of the District Commissioner, who duly appreciated the excellent venison of the Snipes.

The museal specimens are from Shirati near the Victoria-Nyanza. Dates of collecting: January 31st, February 1st 1909.

Crocethia alba (PALL.) — The Sanderling was fairly frequent on the shores of the Red Sea during the winter months. They were usually to be seen in company of Plovers, Turnstones and Redshanks.

The data of the museal specimens are: Assab, January 22nd, February 3rd (two specimens) and 17th (two specimens) 1907.

Calidris minuta (LEISL.) — The Little Stint I saw in company of other Plovers during the winter months on the banks of the Red Sea. I collected two specimens near Assab, January 22nd and 27th 1907 and one near Shirati, April 21st 1909.

Calidris alpina alpina (L.) — I collected the the Dunlin near the great gathering place of the birds of passage, in the vicinity of Assab, near the Red Sea, February 13th 1907.

Calidris testacea (PALL.) — The Curlew-Sandpiper is also to be found in great numbers during the winter months on the sand- and coral-banks of the Red Sea. I collected the museal specimens near Assab, January 11th, 22nd, 26th (two specimens), 27th and February 13th 1907.

Dromas ardeola PAYK. — The Crab Plover was a very common bird on the shores of the Red Sea. It is a lively bird, always in movement. Their flight is similar to that of the Stone Curlew. Their food consists in small fish, insects, snails, spawn. It breeds on single small sandbanks in the Red Sea, on small islands, in holes dug by the Hermit-crab. The fishermen of those parts regularly take the eggs in their nesting places.

The museal specimens I collected near Assab, May 14th, 24th, June 20th, 28th, July 1st, 20th, 21st and 26th 1907.

Burhinus vermiculatus (CAB.) — The life of this Stone Curlew is quite similar to that of our Stone Curlew. During daytime I disturbed single ones from under the bushes of the sandy parts of arid savannas. The museal specimens I collected near Arusha Chini, February 29th and April 3rd 1914.

Burhinus capensis capensis (LICHT.) — The first specimen of this Stone Curlew I collected near Shirati, on February 22nd 1909. DR. JULES MADARÁSZ described it under the name of *Oedicnemus csongor*, which later on proved to be a synonym. The other museal specimen I collected on Ruvana steppe, July 15th 1909. The life-habits of these birds are the same as those of the other Stone Curlews.

Burhinus capensis dodsoni (OGILVIE-GRANT.) — I several times got up Dodson's Stone Curlews in front of me from under the *Salvadora persica* bushes of the Margebla-oaze. They were usually in pairs. It was in Margebla that I collected the museal specimens, two specimens on March 18th and again two on July 26th 1907.

Cursorius temminckii temminckii SWAINSON (*-ruwanensis* MAD.) — Ruwana-steppe, July 2nd 1910.

Rhinoptilus calcopterus (TEM.) — I met these Bronze-winged Coursers on the bare, waterless savannas. Though they were not such noisy, feathered watchmen of the wilderness than the Crowned Lapwings are, they alarmed the surroundings with their alarmery when we approached them.

I collected the museal specimens near the Lettema-mountains on March 19th and 21st 1904 and near Arusha Chini on May 10th 1907.

Larus leucophthalmus (TEM.) — Along the Red Sea the White-Eyed Gull was the most common sea-gull. Above fisher-settlements they always wheeled in great numbers. They never mingled with Sooty Gulls, though these also lived there in great numbers. Even at their breeding colonies they only tolerate their own kind. One of their nesting colonies was on Fatmah island, where I collected, on July 11th 1907, a clutch for our Museum. On the sandy ground the numerous nests were close to each other. The clutch consisted of two eggs.

I collected the museal specimens: Assab, January 28th (four specimens), May 13th (two specimens), 21st, 29th (three specimens) 1907, and Fatmah island May 21st 1907 (four specimens).

Larus hemprichii BRUCH. — It is very common on the Red Sea.

I collected the museal specimens: Assab, January 14th (two specimens), 17th (three specimens), February 3rd, June 29th (two specimens), 20th and July 14th 1907.

Larus argentatus heuglini (BREE.) — Those in the museal collection were described by DR. MADARÁSZ as *Larus affinis* Heuglin's Herring Gull is a frequent visitor, on the shores of the Red Sea during the winter months. I collected the museal specimens near Assab, January 17th, 23rd, February 15th, 17th (two specimens) 1907.

Larus fuscus (L.) — The Lesser Black-Backed Gull seems to be a resident near the Red Sea, because I collected the museal specimen in company of *Larus hemprichi*, near Assab, July 14th 1907.

Larus cirrocephalus poiocephalus SWAINSON. — Its life-habits and call are like that of our Black-headed gull. The museal specimens I collected near Shirati, Victoria Nyanza, on January 17th (two specimens) and February 22nd 1909.

Gelochelidon nilotica (GM.) — The Gull-billed Tern was fairly frequent near Lake Jippe during December. The museal specimens I collected near Lake Jippe, on December 3rd, 10th and 15th 1904.

Hydroprogne caspia (PALL.) — The mighty Caspian Tern must have been fairly rare near the Red Sea, because I saw odd ones only sporadically. I collected the museal specimens on Fatmah-island, May 28th 1907.

Sterna repressa HART. — In calm weather very large silvery glittering spots are to be seen on the surface of the Red Sea. This is an immense quantity of small, sardine-like fish above which thousands of seagulls and Terns wheel and screech and drop down on them. Among these the most frequent was the White-cheeked Tern.

The uninhabited Fatmah islands was one of the breeding places of the white Tern. When we approaches the colony, the birds, in defense of their nests, flew around us with great screeching. In the colony the nests (small depressions scratched into the sand) were so close to each other, that we scarcely could walk between them. From there I collected a clutch of 14 eggs on May 11th 1907.

The museal specimens I collected near Assab, May 14th (three specimens), June 29th, July 6th and 8th (two specimens) 1907.

Sterna anaethetus fuligula LICHT. — It is not as frequent in the surroundings of Assab as the white cheeked Tern. I only collected one specimen there, on June 1st and another one on Fatmah island, June 7th 1907.

Sterna albifrons saundersi (HUME.) — The Little Tern followed the huge swarms of tiny fish in great masses. Usually half-a-dozen of them fell to one shot fired into this whirling mass of birds. I collected near Assab on February 22nd twelve specimens and on Fatmah island, May 21st two specimens.

Sterna bergii velox (CRETZSCHM.) — I collected two specimens of this species near Assab, February 20th and 23rd 1907.

Sterna benghalensis par (MATHEWS et IREDALE). — Their life-habits are similar to those of the other Terns. Around Assab and on the islands near-by it was very common.

The data of the museal specimens are: Assab, May 23rd, 31st, June 21st, 29th, July 1st (four specimens) 1907.

Pterocles gutturalis saturator HART. — I saw this fine, large species of Yellow-throated Sandgrouse in the surroundings of Ruvana steppe in fairly great numbers. They allowed man to approach them very close, getting up sometimes almost from under our feet. It is very difficult to notice the bird hiding on the sandy ground.

The museal specimens I shot on Ruvana steppe, July 17th, 22nd and 23rd 1910.

Pterocles decoratus (CAB.) — This Sandgrouse is the smallest of East-Africa's Pterocles. It was fairly frequent in the thorn-bushes and Parasol acacias of the sandy parts of the savannas around Kilima Ndjaro. They were to be seen usually singly or in pairs, but they flighted to drink in large groups. I found seeds and remainders of insects in their crops.

I collected the museal specimens at the following places: Mtoya Kifaru, January 12th, February 2nd, 7th, 8th 1905, Boma Gombe, March 16th 1903, Lake Njippa, November 13th 1903 and Pangani river, June 11th 1905.

Pterocles lichtensteini TEM. — On the bare, desert-like Danakil-land, where some vegetation subsisted only on sandy parts, this Sandgrouse was rather frequent, the venison of which was our daily menu. On this territory, where water is very scarce, odd Dorcas gazelles or Dikdiks (Madoqua) were very rare, so it was always roast Pterocles which came to my table.

I found in their crops various grass-seeds and remainders of seinets.

The museal specimens I collected on the following places: Assab, January 17 th, 29th, 29th, Wadi Gibdo, April 18th, 19th, 21st, 21st, 23rd and 28th 1907.

Treron calva salvadori (DUBOIS) (— *Vinago gibberifrons* MAD.) — These Parrot-pigeons covered certain trees in great numbers at the season, when berries ripened. Their colour melting into that of the foliage, they would have been hard to notice, if the greedily feeding multitude of pigeons would not have kept the foliage in constant movement, while they utter their whistling call all the time, which does not resemble the cooing of pigeons at all.

When at last I caught sight of one of these birds and fired at it, almost always several of them fell at a same shot, they covered so densely the trees with ripe berries. When they had consumed all the berries, they vanished to search for other trees in further parts of the country.

From a culinary point of view the Parrot-pigeon was very appreciated at the table of the Europeans living there. At berry-ripening time even the natives hunted them with loops.

I collected the museal specimens near Mujenje (Province Unyoro along its southern border) on July 29th, August 23rd and 28th September 2nd 1913.

Treron calva brevicera HARTERT et GOODSON. — This Parrot-pigeon gathers in great number on trees with ripe fruit and berries, where usually a large crowd of birds meet. They very much like the ripe fruit of the wild fig-trees. Then they cover the tree in great numbers, also Turacos and the Casqued Hornbill (*Bycanistes*) with its cracking call, usually visit it. While doing this, the greedily feeding green pigeons constantly utter their whistling call, which does not at all resemble the cooing of pigeons.

The museal specimens I collected at the following places: Kibosho, February 13th (a quite young, scarcely feathered young specimen) July 18th, 22nd 1903, February 18th, 19th, 1904, Ngare Dovash, July 17th 1909.

Treron delalandii granti (VAN SOMEREN). — The life-habits, voice and flight of all species of Parrot-pigeons are similar. We can take it for sure, that when berries of certain trees ripen, the Trerons living on those parts of the country will appear in great numbers. Natives know and exploit this also taking their share of them with loops made of hair.

The extension of this species is very great. The data of the museal specimens are: Moshi, February 14th, August 3rd 1903, August 14th, 15th 1905, Kibosho, September 6th 1904, Arusha, September 26th 1905, Ruvana steppe, June 23rd, iuv.

Columba uncinata CASSIN. — SIR FREDRICH J. JACKSON in his book „Game birds of Kenya and Uganda” mentions this grey wood-pigeon, also referring, among other finding places to the Bugoma virgin forest. Though he does not mention the collector, the collected specimens are probably those from my collection of 1914, which came, by way of auction — as far as I know — in the property of SIR FREDRICH J. JACKSON, when I became a prisoner of war.

Columba a. arquatrix (TEM). — The flight of this fine Pigeon of the virgin forest reminds greatly to the one of our Wood-Pigeon. It is the inhabitant of the virgin forests of high mountains. In forests of the plains or in thorn-bushy savanna-woods I never met it. On Kilima Ndjaro and in the Meru-mountains they reach up even to 3000

meters. These too, as all species of pigeons living on fruits and berries, cover from time to time some berry laden trees of the virgin forest, but never in such large groups, as the Parrot-pigeons do.

I never used this big-sized pigeon for cooking purposes. According descriptions it is mostly unpalatable, bitter and from certain berries it might become poisonous too.

Streptopelia roseogrisea arabica (NEUMANN.) The Arabian Pink-Headed dove is very much like ours. I collected the two museal specimens near Assab (Danakil-land), April 3rd and 4th 1907.

Streptopelia semitorquata semitorquata (RÜPP). The Red-Eyed Dove occurred everywhere in those parts of East-Africa, which I had explored. Its call reminds us more or less to that of our turtle-dove. There were plenty of them around the plantations of the natives. The negroes of the sea-shore imitate the turtle's call like this: „Kuku mtupa toopu, mimi nyama toopu”. (The hen is all bones, I am all flesh.)

I collected the museal specimens at the following places and dates: Moshi, February 13th, 14th, March 17th, June 25th, July 20th 1903, Kibosho, September 8th and 15th 1903, Mujenje, August 22nd 1913.

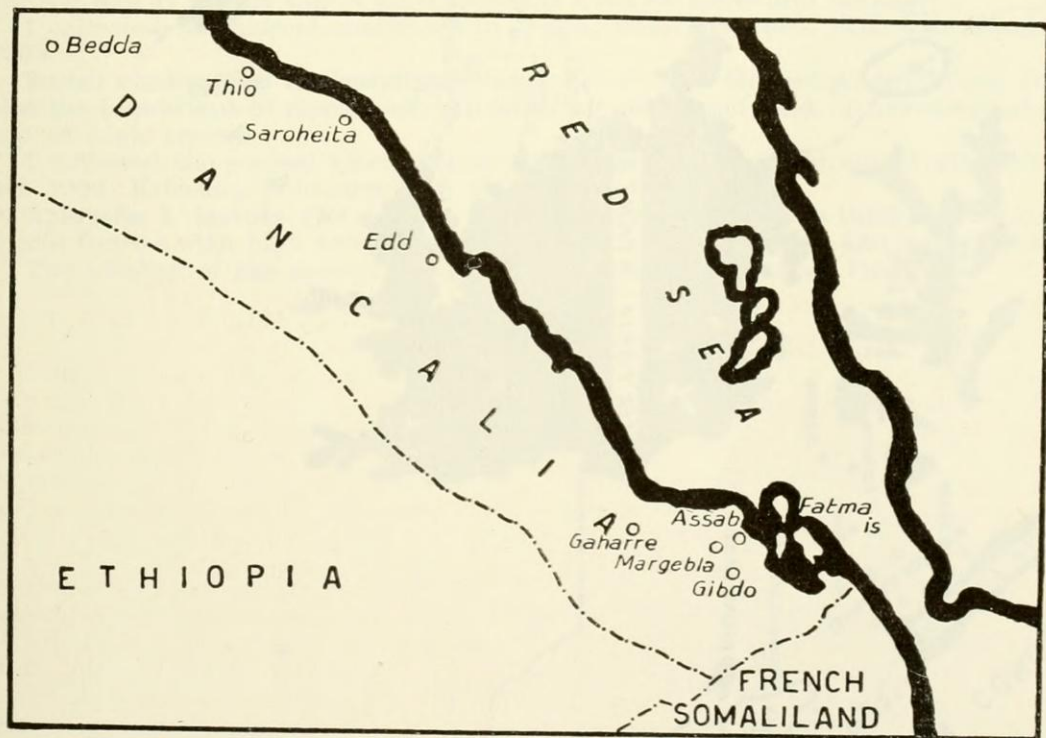
Streptopelia decipiens perspicillata (FISCH. et RCHW.) — I collected the Mourning Dove only in a single specimen, near Moshi, July 14th 1903.

Streptopelia capicola somalica (ERL.) — The Ring-Necked Dove likes the dry, sandy savannas with Parasol acacias. It does not often visit the cultivated fields. I found seeds of weeds in their crops.

I collected the museal specimens at the following places: Moshi, February 11th, 19th, July 11th, 11th 1903, Boma Gombe, April 19th 1903, Lettema-mountains, May 3rd 1904.

Streptopelia capicola tropica (RCHW.) — This too, like the Somali Ring-Necked Dove, prefers the savannas with sandy soil. It also lives mostly on seeds of weeds.

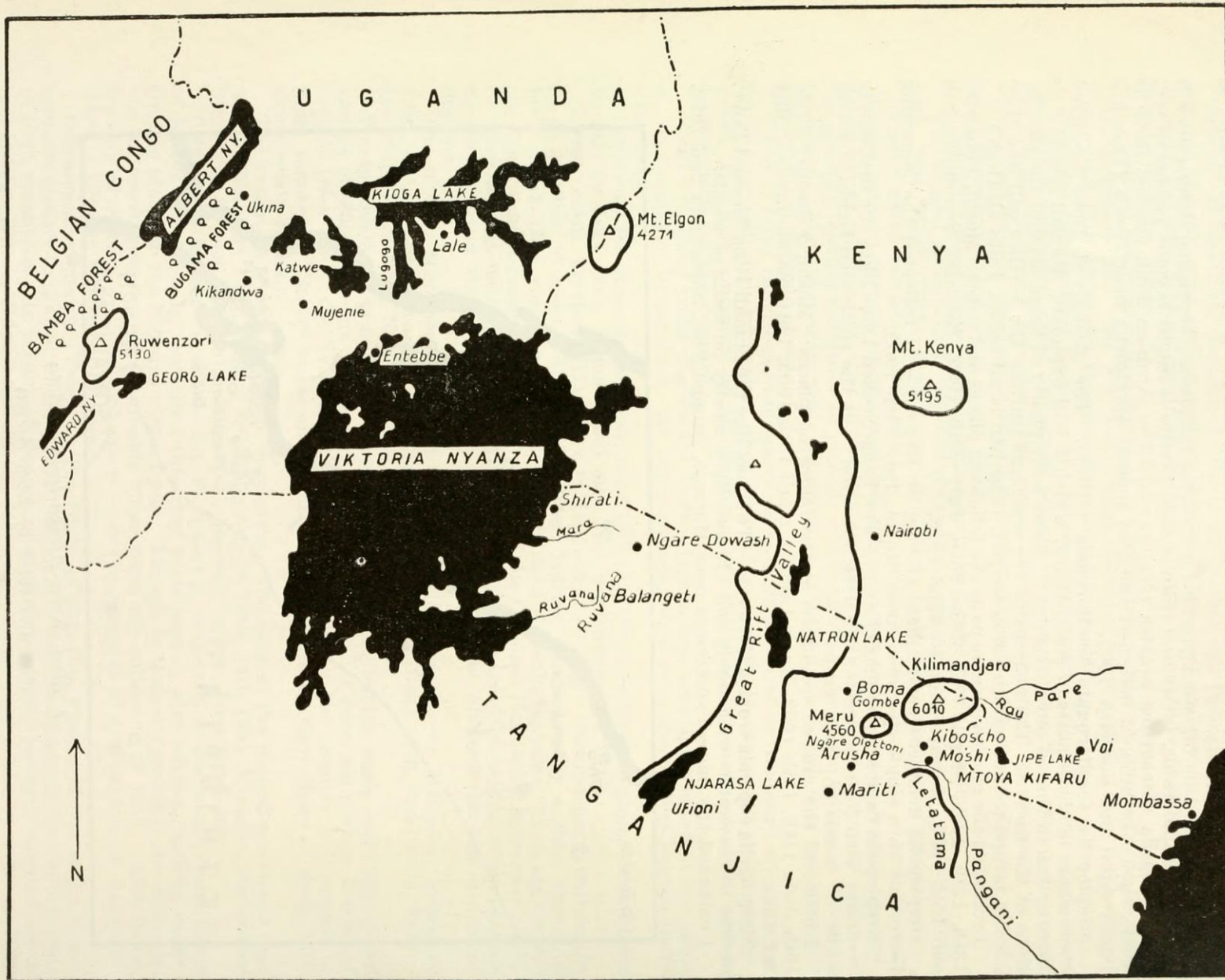
I collected the museal specimens near Mujenje, August 21st, September 2nd 1913.



1. ábra. Kelet-Afrika térképvázlata

Fig. 1. Sketch of East-Africa

L. Bancsó



2. ábra. Danakilföld térképvázlata — Fig. 2. Sketch of Danalia

Streptopelia senegalensis aequatorialis (ERL). The colour of this tiny Laughing Dove is very much like that of our species. Its life-habits are similar too. It also lives mostly on seeds of weeds.

The data of the museal specimens are: Moshi, June 21st, 29th, 29th, July 21st 1903, Lettema, March 17th, 17th, May 20th, 20th, 21st, 1904, Mujenje, July 11th, July 28th 1913, Margebla, March 8th 1907.

Oena c. capensis (L.) — Where there were cultivated parts in the vicinity of savanna woods, the fine, Long-tailed Dove was to be found everywhere. Under the grain-stores of the natives, built on poles and woven like baskets, there were always one or two of them tripping, usually in the company of tiny Weavers. Their flight is very quick, zig-zaging.

Their data are: Lettema-mountains, January 28th 1904, Arusha Chini, March 3rd 1904, Mtoya Kifaru, January 13th, 22nd (three specimens), 23 rd, February 1st, 2nd 1905.

Tympanistra tympanistra (TEMM.) — The little Tambourine Dove is the inhabitant of thickesses. Its usual haunt is the undergrowth of forests. Its call does not remind one to that of pigeons or turtle-doves. The two first sounds of its call are strong, then they are lowered gradually to be almost inaudible at the end. It feeds on berries. In the thickesses of the cultivated zone of Kilima Ndjaro it was very frequent.

The museal specimens I collected at the following place: Kibosho, February 21st, April 3rd and August 31st 1903.

Turtur afer (L.) — This little Senegal Wood Dove was fairly frequent in the thickesses surrounding the cultivated zone of Kilima Ndjaro, in the thick undergrowth of the virgin forest's brim. I never saw it on high trees. It lives on berries.

I collected the museal specimens at the following places: Moshi, February 10th, 14th, 14th, June 9th 1903, Kibosho, February 19th, March 23rd 1903.

Turtur afer kilimensis (MEARNS.) — This little Wood Dove with blue wing-spots, dwells in the thick under growth of the forests, in the vicinity of cultivated fields. I never saw it on the top of high trees. It lives on seeds and berries.

I collected the museal specimens in Moshi, February 10th, 14th and March 22nd 1903.

Turtur chalcospilos chalcospilos (WAGLER.) — The Green-Spotted Wood Dove is also the inhabitant of thickesses surrounding cultivated land. I never saw it in the top of high trees.

I collected the museal specimens at the following places: Moshi, April 14th, June 9th 1903, Kibosho, February 19th 1903.

Aplopelia l. larvata (TEMM.) — It is the inhabitant of the thick undergrowth of virgin forests with high trees. It mostly frequents the ground and feeds on berries.

The locality of the museal specimen is Ndassekera, October 7th 1911.