A review of the indigenous pipits (Genus *Anthus* Bechstein: Motacillidae) of the Afrotropics

P.A. CLANCEY

Research Associate, Durban Natural Science Museum, P.O. Box 4085, Durban 4000, South Africa.

Summary

Clancey, P.A. 1990. A review of the indigenous pipits (Genus *Anthus* Bechstein: Motacillidae) of the Afrotropics. *Durban Mus. Novit.* 15: 42–72. Following Hall's (1961) revision of the world pipits of the genus *Anthus*, further research on Afrotropical pipits has shed light on the status of certain unresolved forms. Recent research has suggested the admission of several additional full species to the Afrotropical complement, which is here raised to sixteen, to include seventythree species and subspecies. There are fourteen species in the genus *Anthus* and two in the resurrected taxon *Hemimacronyx* Roberts. Attention is drawn to additional populations which should be described as new subspecies when adequate specimen coverage becomes available. The diagnostic criteria, habitat preferences and ranges of all forms recognized are given. Major concentrations of pipit taxa occur in northeastern, eastern and southern Africa, with poor representation in western Africa. The distribution patterns suggest the occurrence of major invasions by ancestral forms from landmasses to the northeast and east of the continent, and also widespread evolutionary radiation within eastern and southern Africa. Many resulting endemics have highly vicariant, and in some instances, residual ranges. Some widespread species have inexplicably not occupied huge tracts of apparently suitable terrain.

KEYWORDS: Anthus, Hemimacronyx, *Afrotropical, taxonomy, phylogeny, distribution.*

Introduction

Recent research into the pipit genus *Anthus* resident in the Afrotropical Region indicates that some 14 species are involved, these centred in the east and south of the continent. Representation is poor in West Africa, where one finds elements of a wide-ranging species (*A. leucophrys*) and a second in the mesic highlands (*A. latistriatus*), while peripheral populations of two others – *A. similis* and *A. cinnamomeus* – are present. The subSaharan complement of Anthinae pipits is comparable to that of Eurasia with its vastly greater expanse of suitable habitats for these terrestrial passerines. Vaurie (1959) lists 13 species for the Palaearctic, one of which has since been split by the British Ornithologists' Union Records Committee (1986) with the recognition of the Rock *A. petrosus* and Water *A. spinoletta* Pipits as two discrete polytypic assemblages on both ecological and morphological criteria. The American Ornithologists' Union Committee on Classification and Nomenclature (1989) has recommended that *A. rubescens* of the Far East and the Nearctic is yet a further species, which, if followed, would raise the Palaearctic complement to 15 species. Vaurie (1959) recognised some 33 taxa (both species and subspecies), which is on the conservative side, as some perfectly discrete geographical races were not admitted. In the case of Afrotropical pipits, variation of taxonomic import is markedly greater, the present revision recognising some 71 species and subspecies, plus two in the genus *Hemimacronyx* Roberts which bridges *Anthus* and *Macronyx*. *Hemimacronyx* is included because a form of it (*A. chloris*) had until very recently been treated as part of *Anthus* (Cooper 1985), making a grand total of some 73 forms.

Following Cooper (1985), who supports the usage of the subfamilial taxa Motacillinae (wagtails) and Anthinae (pipits and longclaws) in the family Motacillidae, I use the term Anthinae where appropriate.

The concentration of Anthinae pipits in the Palaearctic and Afrotropics and their reduced presence in Indomalaya, Australasia and the Nearctic and Neotropics indicates that the plexus is basically of Old World origin. From recent studies of highly polytypic African species, it can be postulated that the contemporary African genus *Anthus* derives from both several major Palaearctic incursions and Afrotropical radiations.

The Afrotropics comprises major wintering grounds for three highly migratory Palaearctic pipits, these being the Tree Pipit *A. trivialis*, the Tawny Pipit *A. campestris* and the Redthroated Pipit *A. cervinus*, while Godlewski's Pipit *A. godlewskii* has been recorded once from the north of the region. None of these pipits is clearly linked in an evolutionary sense with any of the Afrotropical assemblage, though the similarity of certain features of the steppe-related Palaearctic *campestris* and African plains *vaalensis* may be of some phylogenetic import.

The Afrotropical Grassveld Pipit *A. cinnamomeus* is a regional allospecies of the wide-ranging superspecies *A. novaeseelandiae* (Australasia) and derives from the same

immediate ancestral stock as both it and *A. richardi* of the Palaearctic and *A. rufulus* of Indomalaya. Neither of these latter allospecies reaches Africa south of the Sahara on migration, mainly because the ecological niche there is already fully exploited by the various subspecies of the indigenous *cinnamomeus*, but it can be concluded that the ancestor of the contemporary forms *cinnamomeus, richardi, rufulus* and *novaeseelandiae* did so in the distant past.

Maps of the breeding ranges of African pipits suggest that the continent has been invaded from the northeast from Eurasia on several occasions in the past, and that there has been much subsequent radial speciation within the continent. There has also been widespread local die-back through time associated with fundamental shifts in the ranges of major biomes which have taken place since the early Pleistocene. Strangely enough, large unoccupied tracts of what appear to be eminently suitable terrain often lie deep within the cores of some wide-ranging Afrotropical polytypic species (eg. *A. leucophrys* and *A. similis* in Zimbabwe), such distributional hiatuses being inexplicable at the present time.

A significant point which has emerged is that geological features, such as the major rift valleys in Africa, play no part in subspeciation and little or none in the regional disposition of entire species of pipits. Even the presence of such a natural barrier as the basin of the Red Sea and the Gulf of Aden has not prevented the spread of some essentially African mainland subspecies to the southwest of the Arabian Peninsula, as instanced by races of *A. similis* (*A.s. arabicus* and *A. s. nivescens*) and of *A. cinnamomeus* (*A. c. annae*) being represented by populations on both sides of the water barrier. The more successful of the Afrotropical species of *Anthus* are to a large extent opportunistic and moderately adaptive, their ranges controlled by the availability of suitable habitat and not by features occasioned through major crustal faulting. Furthermore, postbreeding migration patterns are a major factor contributing to dispersal in many species of *Anthus*.

The most recent of Eurasian *Anthus* species to colonise the Afrotropics is seen as the Longbilled Pipit *A. similis*, the current African races of which constitute the western complement of a continuum of forms, which are closely associated with rugged mountainous slopes and arid steppe-like and often desertic terrain. The African representatives are linked closely with others, these extending through the Middle East and the Arabian Peninsula as far east as the Indian Peninsula and northern Burma. Clancey (1985a) argued that the Wood Pipit *A. nyassae* is descended from a still earlier incursion of Africa by a longbilled pipit ancestor, the contemporary species and its races of which are inhabitants of the lightly grassed substrate of *Brachystegia* (miombo) woodland and like savanna. *A. similis* and *A. nyassae* replace one another ecologically, and where they occur virtually sympatrically, as in some mountains, *similis* occurs on the open grassed, often stony, summits and *nyassae* in the surrounding woodland savanna. Similar niche partitioning is also present in the case of Jackson's Pipit *A. latistriatus* and the Grassveld Pipit *A. cinnamomeus* where they occur in close sympatry in mountain ranges in equatorial Africa.

Morphology and geographical variation

Pipits are generally small to small-medium in size, lark-like and slender, with the tail in the majority long in relation to the wing. Colouration is simple in conformity with a terrestrial grassland existence, the upperparts in varying shades of brown, either plain or streaked, with the wings and the tail comparable. Ventrally, they are white or off-white to buff, the breast and sides moderately darker and marked with spots or streaks of dark brown or blackish. Like the closely allied wagtails of the genus *Motacilla*, they are characterized by the elongate nature of the tertials, the tips of which meet or slightly overlap those of the remiges. Legs are relatively long and slender, the toes longish and the claw of the hind toe is normally elongate among those frequenting dense grass. It varies in line with the nature of the substrate and density of grass coverage. In the wings, the first primary is vestigial, the second in effect the first functional remex.

Geographical variation is present in the majority of species, but is lacking in others with circumscribed ranges and not subject to postbreeding movements. Interpretation of the variation is severely influenced by the constraints of solar radiation and environmental wear on the feathers of these terrestrial and, in the main, open country species, and by the postbreeding vagility and often long range migration undertaken by many of them. Most pipits show marked colour change between their condition when freshly moulted and some months later when they are breeding and the feathering is faded and worn, and some fade more quickly than others.

Geographical variation is on the whole relatively conservative but highly developed in the more wide-ranging species, especially those with fragmented and tenuous ranges. Unlike larks Alaudidae, pipits do not form edaphic or soil colour related phenotypes, plumage variation following closely that of major environmental patterns, in which richly coloured (saturated) subspecies inhabit regions of high rainfall or the presence of moist alluvial soils, as on floodplains. Populations inhabiting more arid conditions are, by contrast, often markedly paler with reduced dark streaking over the breast. The factors determining the marked size variation, as shown by wing length, found in some species is unclear, as it is not directly associated with the altitudinal disposition of present populations and may reflect earlier range patterns. By and large, such variation is of mosaic form and is not clinal. Populations showing clear differences in single or combinations of variables, and with definable breeding, and even postbreeding, ranges, are treated as formal subspecific taxa. Descriptions of colours which are capitalised are those of Ridgway (1912).

Apart from the problems presented by the variation within established species and its interpretation in formal taxonomic terms, it is difficult to assemble forms into meaningful specific groupings, as the differences currently employed to differentiate species – such as the colour of the base of the lower mandible and length of the claw of the hind toe – are often relatively minor, and some frequently difficult to determine on the basis of dried museum skins lacking replete data on soft parts. Species limits in some groups of *Anthus* persist as the subject of debate and disagreement among specialists, such as the limits of *A. vaalensis* vis-à-vis *A. leucophrys*, or the desirability of splitting off the steppe and mountain slope group of longbilled forms in *A. similis* as discrete from the savanna woodland analogue, *A. nyassae*. Difficulties presented by confusingly similar siblings have resulted in well marked (in an ecological sense) species, such as *A. hoeschi* and *A. latistriatus*, reposing in synonymy for decades and the temporary recognition of invalid forms in standard taxonomic texts.

The Genus *Anthus* Bechstein, 1805

At the present time, most systematists involved with this genus do not favour a material breakdown of the genus *Anthus* Bechstein for practical reasons and not through any disinclination to acknowledge the significant group-oriented variation occurring in the taxon. In so far as the Afrotropical representation is concerned, some eight generic (or subgeneric) names, in addition to *Anthus* itself, are available in the event of any future dismemberment of the present genus. The names concerned are as follows:

Anthus Bechstein, 1805: type-species *Alauda pratensis* Linnaeus, 1758

Corydalla Vigors, 1825: type-species *Anthus richardi* Vieillot, 1818

Cinaedium Sundevall, 1850: type-species *Anthus lineiventris* Sundevall, 1850

Caffranthus Roberts, 1922: type-species *Anthus caffer* Sundevall, 1850

Afranthus Roberts, 1922: type-species *Anthus brachyurus* Sundevall, 1850

Anomalanthus Roberts, 1922: type-species *Anthus similis* Jerdon, 1840

Meganthus Roberts, 1922: type-species *Anthus vaalensis* Shelley, 1900

Petranthus Roberts, 1922: type-species *Anthus crenatus* Finsch and Hartlaub, 1870

Hemimacronyx Roberts, 1922: type-species *Anthus chloris* Lichtenstein, 1842

Wolters (1979), among modern workers dealing with this complex, uses a few of the above names – *Caffranthus*, *Petranthus* and *Cinaedium* – in his arrangement of Afrotropical species, the remainder of the species regarded as part of *Anthus*. Cooper (1985) and Clancey (1987a) agree that the Yellowbreasted Pipit *Hemimacronyx chloris* forms a significant link between the pipits of the genus *Anthus* and the larger and more ventrally decorative and derived longclaws of the genus *Macronyx* Swainson. In furtherance of this decision, it is desirable to acknowledge the validity of *Hemimacronyx*, with its type-species *A. chloris* Lichtenstein, and that associated with *chloris* in *Hemimacronyx* is the currently anomalously treated Sharpe's Longclaw *Macronyx sharpei*. This latter may be either placed as a separate species in *Hemimacronyx* or as a subspecies of *chloris*. In the light of their remoteness from one another, and the existence of good differentiating characters, it is advisable to view them as congeneric rather than conspecific, and to treat the Kenyan form as *H. sharpei* (Cooper 1985, Clancey 1987a).

From a purely academic point of view and of no immediate practical use, employment of the genera proposed by earlier ornithologists could effectively result in the following evolutionary clusterings of Afrotropical pipits:

Anthus Bechstein, 1805

Meganthus, 1922	*Anthus vaalensis*
	Anthus leucophrys
	Anthus pallidiventris
	Anthus melindae
Anomalanthus, 1922	*Anthus similis*
	Anthus nyassae
Corydalla, 1825	*Anthus cinnamomeus*
	Anthus hoeschi
	Anthus latistriatus
Caffranthus 1922 (including *Afranthus*, 1922)	*Anthus caffer*
	Anthus brachyurus
	Anthus sokokensis
Cinaedium, 1850	*Anthus lineiventris*
Petranthus, 1922	*Anthus crenatus*

Hemimacronyx Roberts, 1922

Hemimacronyx sharpei
Hemimacronyx chloris

Wolters (1979) treats *Anthus pratensis*, the generally accepted type-species of *Anthus* Bechstein, 1805, as a member of the genus *Spipola* Forster, 1817, along with other medium-sized pipits, including *A. trivialis*, which winters extensively in Africa. The situation apparently arises from the introduction of *Anthus* in both 1805 and 1807 by Bechstein (Bechstein 1805 in Vaurie 1959), the type-species subsequently fixed as *A. pratensis* by Selby (Selby 1825 in Vaurie 1959). Unfortunately, the background to this nomenclatural issue was not detailed by Wolters (1979). If Wolters (1979) is followed, it would seem that *Alauda campestris* Linnaeus 1758 rather than *Alauda pratensis* Linnaeus 1758 is to be accepted as the type-species of *Anthus*. Hartert (1932) accepted *Anthus campestris* as the type-species of *Anthus* Bechstein. As *Spipola* is unlikely ever to be given widespread recognition, *pratensis* is accepted here as the type-species of *Anthus*. The case, moreover, does not affect the nomenclature used here at any point.

The Golden Pipit *Tmetothylacus tenellus* (Cabanis), 1878, described from Taita, southeastern Kenya, of the dry savanna country of northeastern and East Africa, and with some three southern African records, is not closely allied to either the sombre-coloured *Anthus* or *Hemimacronyx* pipits or the larger *Macronyx* spp. It has on occasion been seen on the male's plumage characters as closely allied to the yellow-ventralled species of *Macronyx*, namely, *M. croceus* and *M. fuelleborni*, but such similarities are assuredly the result of convergence and do not reflect phylogenetic affinity. The genus *Tmetothylacus* was proposed in the first instance on the bare lower tibia, which was initially interpreted as an adaption to a wetland mode of life. The species is in fact an inhabitant of dry *Acacia* country. While dealing with *Macronyx*, it may be of use to mention here that seven species represent the genus, these centred from northeastern Africa (in Ethiopia), south to the east of the Lower Guinea Forest to reach Angola in the west and the Southern African Subregion in the east and south. The distributional pattern of the genus is similar to that of *Anthus* in the Afrotropics, with minimal representation to the immediate north of the Lower Guinea Forest and the whole of West Africa, where only *M. croceus* occurs. It is not evident why there should be such close congruence in the disposition of the *Anthus/Hemimacronyx* and *Macronyx* assemblages in Africa. While linkage can be demonstrated in African, Eurasian and Indomalayan elements in the case of the Longbilled Pipit *A. similis*, and can be argued likewise in the case of *A. cinnamomeus* (Afrotropics), *A. rufulus* (Indomalaya) and *A. richardi* (Eurasia), none of the contemporary species of *Macronyx* in Africa shows any resemblance to extralimital Old World members of the Motacillidae, unless, perhaps, for *Dendronanthus indicus* of the eastern Palaearctic. This statement is made with the convergent similarity of the African *M. croceus* and *M. fuelleborni* and New World icterids

Sturnella spp. fully in mind. At this stage the longclaws are seen as the result of a unique Afrotropical radiation, the ancestral origin of which is uncertain. In a new interpretation, Sibley *et al.* (1987) place the pipits (Motacillidae) as a subfamily of the Passeridae.

Of the 16 established species of *Anthus* and *Hemimacronyx*, 11 are present in the Southern African Subregion. Three species are endemic to the area – *A. hoeschi*, *A. crenatus* and *H. chloris*. In northeastern and eastern Africa, 12 species occur as breeders, with three endemics – *A. melindae*, *A. sokokensis* and *H. sharpei*. In West and equatorial Africa (west of the Rift), two endemic species are present – *A. pallidiventris* and *A. latistriatus*, while four other widespread species occur, the majority peripherally. Several of the endemic species in South and East Africa have circumscribed ranges and small populations, especially in cases such as *A. hoeschi* and *A. sokokensis*. Vicariance is well developed in many, as in the small species *A. caffer* and *A. brachyurus*, in the Striped Pipit *A. lineiventris*, and the equatorial montane *A. latistriatus*. In evolutionary terms, two species appear to stand apart from the others in their small ranges, ecological isolation and lack of morphological concordance with possible closely allied congeners, these being the East African woodland *A. sokokensis* and the South African Afromontane *A. crenatus*.

Evolution in the Anthinae – some considerations

As suggested earlier in this communication, range maps of indigenous species of the genus *Anthus* in Hall & Moreau (1970), reveal a clustering of species and populations to the immediate east of the Lower Guinea Forest in eastern Africa and the whole of the southern aspects of the continent. They highlight the limited penetration of West Africa effected by these small terrestrial passerines. Another point brought out by the mapping is that continental-based speciation has been much modified by the east-west oscillations on the part of the equatorial forests, this resulting in much of the present vicariance in the distribution of many species. The northeast-south disposition of pipits presupposes that recruitment has largely been from land masses lying to the north and east of Africa, the continent having been invaded from this quarter by ancestral colonists on several occasions.

Ancestral linkage between African endemics such as *A. hoeschi*, *A. latistriatus* and *A. cinnamomeus* and the Oriental *A. rufulus* and Palaearctic *A. richardi* plexuses has been demonstrated (Clancey 1984ab). At the same time, the contemporary *A. nyassae* was effectively linked in evolutionary terms with both the Afrotropical and extralimital races of the essentially arid country based *A. similis*. An updated version of the arrangement by Clancey (1985a) is given here to demonstrate these points:

Schematic evolutionary arrangement of African affiliates of *A. richardi* and *A. similis*

(a)	Eurasian progenitor:	proto-*richardi*
	First colonization:	*A. latistriatus* subspp.
		A. hoeschi
	Second colonization:	*A. cinnamomeus* subspp.
(b)	Eurasian progenitor:	proto-*similis*
	First colonization:	*A. nyassae* subspp.
	Second colonization:	*A. similis* subspp. (with wide extralimital representation)

A. similis – the Longbilled Pipit – is generally seen, following Hall (1961), as a close relative of the Holarctic Rock and Water Pipits *A. petrosus*, *A. spinoletta* and *A. rubescens*. Interestingly, no Afrotropical pipit assumes a distinctive breeding dress, in contrast to several Northern Hemisphere species of this featureless complex of terrestrial birds, but, nevertheless, the assumption of prominent mimosa yellow fringing to the wrist and axillar feathering in the endemic and residual *A. crenatus* of South Africa, suggests that this remnant form may be distantly related to the Water Pipit and its immediate northern relatives.

Most of the other species indigenous to Africa are postulated as the outcome of radiations within the confines of the continent, these, as already suggested, modified by major climatic and vegetational shifts occurring during and immediately following the Pleistocene. Some of the larger plainbacked species inhabiting treeless and steppe-like environmental conditions, such as *A. vaalensis*, *A. leucophrys*, *A. pallidiventris* and *A. melindae*, in all probability derive from an ancestor of the contemporary Eurasian species *A. campestris*, which ranges as a nonbreeding visitor to the northern and eastern aspects of the Afrotropics, but which is not represented by a local form breeding in Africa. As for the others on the Afrotropical list, relationships assessed on simple morphological character similarities do not permit ready association with other small extralimital Anthine pipits. At this stage they require to be considered as forms which have resulted from speciation within current limits. Of the last four pipits concerned, only one is moderately large – the Striped Pipit *A. lineiventris* – which exhibits similarity in its heavily striated ventral surface to the Malindi Pipit *A. melindae*, the congruence not ascribable to convergence unless *lineiventris* stems from an ancestor which occurred in an open grassland environment, which is, nevertheless, plausible. *A. melindae* has a very restricted range in low-lying grassland from southern Somalia to coastal Kenya, whereas *lineiventris* is an extensively distributed but vicariant species, extending from southeastern Kenya to Angola and southeastern southern Africa, generally on plateaux or in hilly country. The yellow present over the wrist in *lineiventris* recalls a like development in *A. crenatus*, and while largely allopatric, these two species do not seem to be closely allied. Interestingly, *melindae* is singularly lacking in yellow in the plumage, but has a yellow base to the bill.

Of the final three species of *Anthus*, two are associated with closed littoral *Brachystegia* savanna woodland (in *A. sokokensis*), or mixed grassland/*Acacia* savanna (*A. caffer*) – again demonstrating the ecological adjustments impelled on open-country terrestrial species of passerines faced with survival or extinction in times of recurring environmental changes as during and following the Pleistocene. Only the small size of the last of the final of the Anthine pipits – *A. brachyurus* – relates it to *sokokensis* and *caffer*, from which it differs in its darker, more olive, colouration, white outer web to the outermost (1st) remex, shorter tail in relation to the wing and entirely terrestrial mode of life. It is assessed as a further relict from an early Afrotropical centred phase of pipit speciation. It appears to have no immediate extant relatives.

The two forms of pipits now arranged in the resurrected genus *Hemimacronyx: H. chloris* and *H. sharpei*, are linking elements between the sombre-coloured true pipits in *Anthus* and the larger and ventrally more strikingly coloured longclaws of the genus *Macronyx*. Both *Hemimacronyx* and *Macronyx* forms are unique to Africa south of

the Sahara, and are the outcome of speciation within present limits. Both *H. chloris* and *H. sharpei* have small widely separated ranges, and they, too, are assuredly relicts, and even in the case of *Macronyx* spp. most species have relatively small ranges, one is highly vicariant (*M. ameliae*), with only one having a truly extensive regional range (*M. croceus*). Some points of similarity between *Hemimacronyx* spp. and *A. cinnamomeus* point to a possible ancestral source of the contemporary and peculiarly African plexus of large, ornate *Macronyx* pipits.

The breeding Afrotropical species of *Anthus*

Genus ***ANTHUS*** Bechstein

Anthus Bechstein, Gemeinn. Naturgesch. Deutschlands 2, 1805: 302. Type, by subsequent designation of Selby (1825), Illust. Brit. Orn. 29: *Alauda pratensis* Linnaeus.

General facies larklike and of slender form. Tertials almost equalling primaries in length, and tail shorter than wing. Dorsal colouration normally streaked in dark and light browns. Ventrally, buff or off-white, the breast, and frequently the sides, narrowly streaked with dark brown. Undertail coverts variable in length. Hindclaw either long, slender and decurved or shorter, depending on nature of substrate. Largely terrestrial, inhabiting steppe-like terrain, grassland and lightly wooded savannas. Sexes alike, but male usually larger than female.

Range of species:

Centred on the Palaearctic, Afrotropical and Indomalayan Regions. Represented in North and South America (two and eight species repectively) and Australasia (one species with a further one in New Guinea).

ANTHUS VAALENSIS Shelley 1900

Buffy Pipit

Diagnostic characters:

Size large, length *ca* 18,5 cm (males). Dorsum plain light vinaceous or sandy olive-brown, reddening over the rump. Ventrally, pale stone colour with the ground to the breast vinaceous-buff, nebulously streaked with light brown. No white in tail. Base of bill yellowish. Primaries 2-5 emarginate, the notching set far back proximally. Hindclaw *ca* 10 mm. Female is smaller than male. See Fig. 1.

Range of species:

Fig. 2. Karooid regions of the interior of the Cape south of the Orange River to Transkei, the high interior of Natal (including East Griqualand) and adjacent Zululand, the plateau of the Transvaal, Zimbabwe and adjacent southern Mozambique (in Manica), west to the Orange Free State, the northern Cape, Botswana (in east and north) and the northern two thirds of Namibia. North of this, extends to Angola, Zaïre south of the Lower Guinea Forest, Zambia, Malawi, western and northern Tanzania, Kenya mainly to the east of the Rift in the Central Highlands, southern and southeastern Ethiopia and northwestern Somalia. Locally migratory.

Habitat:

Variable. In south of range in karoo country in Cape Province, to open grassland in Upper Natal, Transvaal and Orange Free State. In Botswana and Namibia in thin bushveld savanna, occurs around saline pans and on airfields, and in Zambia in clearings in miombo woodland. In East Africa on grazing land, and in Somalia in scattered *Acacia* with grass on a stony substrate. Also in fallow cultivation and recently sown land. Has increased in the south of its range in association with development of cattle ranching.

Status:

Polytypic with 8 subspecies. The limits of *vaalensis* are still the subject of controversy, and some specialists would restrict it to southern Africa (Hall & Moreau 1970), placing the northern populations with *A. leucophrys*, but both species occur sympatrically over a wide area and in the controversial East African sector both occur. *A. vaalensis* ranges in the northeast as far as Ethiopia and western Somalia (Meinertzhagen 1920). Lack of appreciation of the extensive postbreeding dispersal of some subspecies appears basic to the widespread misunderstanding of the true limits of this species of pipit and its sibling *A. leucophrys*. The available museum material is inadequate and what there is, is scattered.

References: Meinertzhagen (1920), Chapin (1953), Winterbottom (1963) and Clancey (1989a).

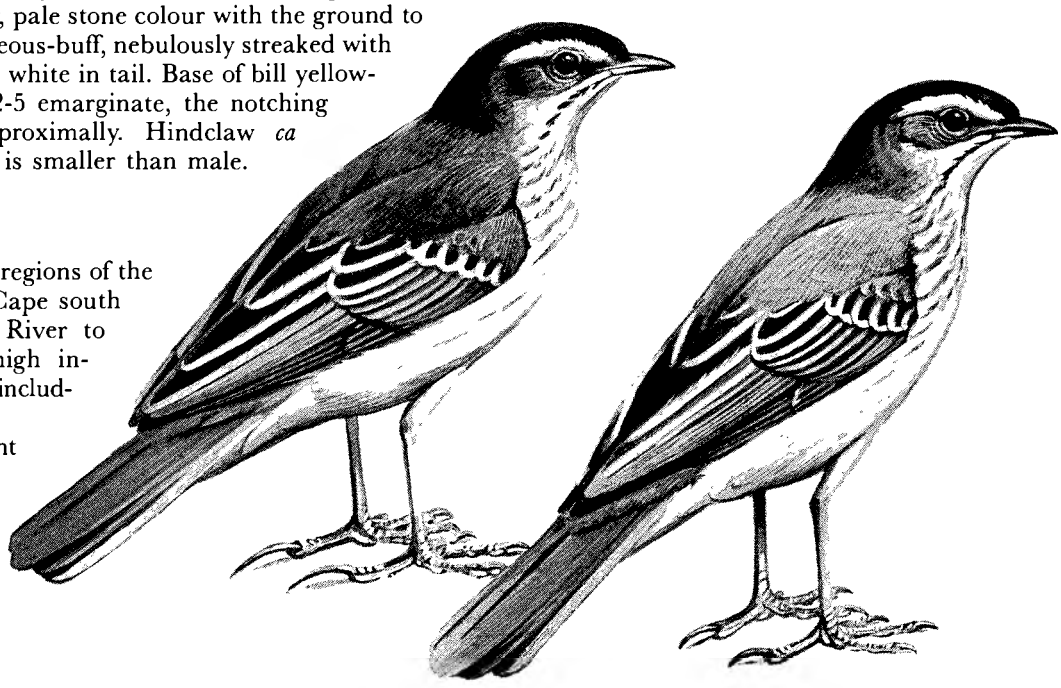


FIG. 1 – Plainbacked *A. leucophrys* (left) and Buffy *A. vaalensis* (right). Note the lighter dorsal surface and reduced contrast between light and dark portions of the face and the shorter hindclaw in Buffy Pipit.

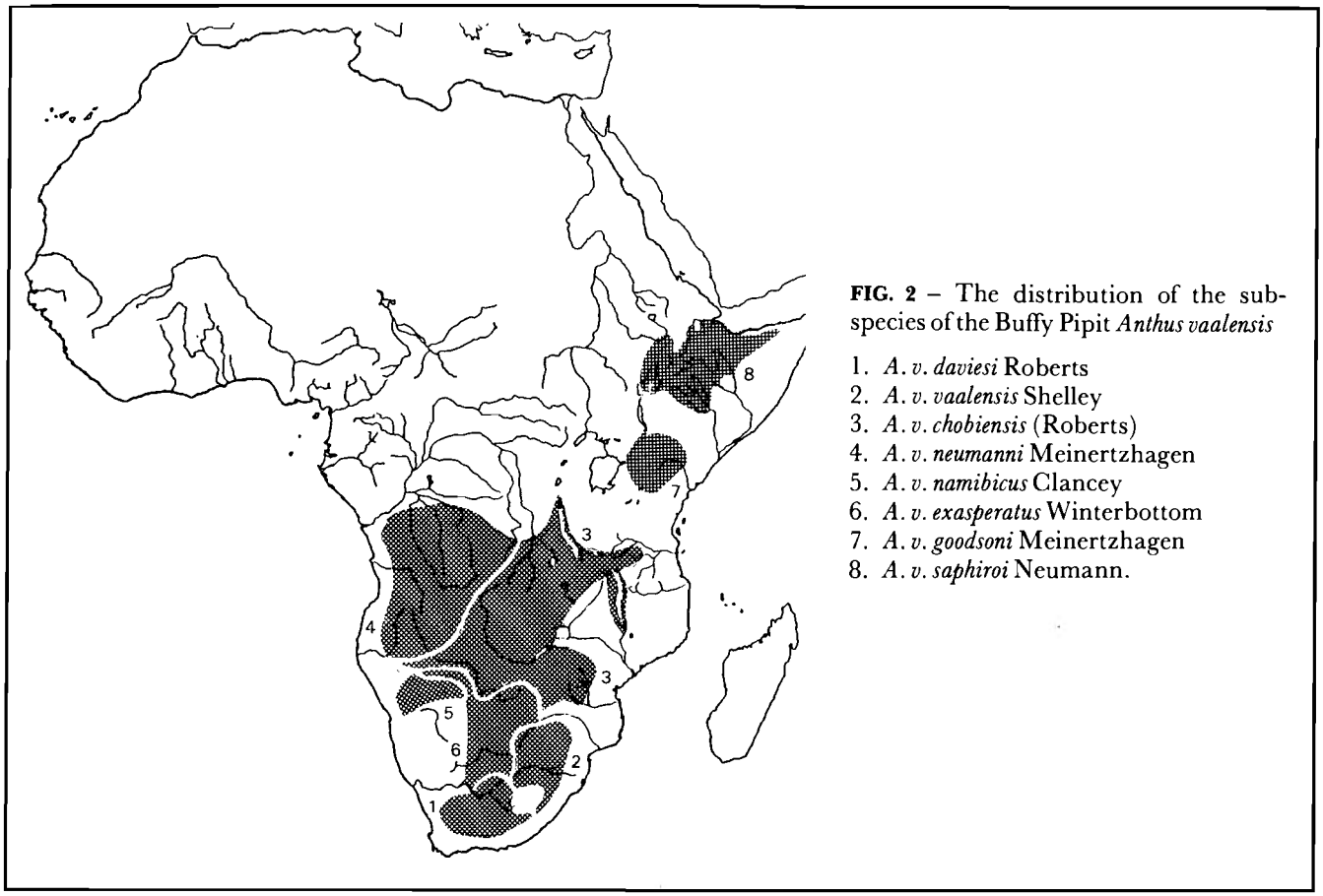


FIG. 2 – The distribution of the subspecies of the Buffy Pipit *Anthus vaalensis*

1. *A. v. daviesi* Roberts
2. *A. v. vaalensis* Shelley
3. *A. v. chobiensis* (Roberts)
4. *A. v. neumanni* Meinertzhagen
5. *A. v. namibicus* Clancey
6. *A. v. exasperatus* Winterbottom
7. *A. v. goodsoni* Meinertzhagen
8. *A. v. saphiroi* Neumann.

Subspecies:

(a) ***Anthus vaalensis daviesi*** Roberts

Anthus daviesi Roberts, *Ann. Trans. Mus.* 4, 1914: 172: Matatiele, East Griqualand, Natal.

Anthus vaalensis clanceyi Winterbottom, *Ann. S. Afr. Mus.* 46, 1963: 347: Glen Lyon Farm, Glen, north of Bloemfontein, Orange Free State.

Rather lighter and more vinaceous, less saturated, than the nominate subspecies over the upperparts and especially marked over the hind neck. Tertials and wing coverts edged paler, more whitish. Below, similar, but ground to breast ranging lighter buff. Similar in size to the nominate race.

Mean wing length of males is 104,1 mm (sd 2,1; 100,5-109; n=8).

Wing lengths of two females are 95 and 100 mm.

Range:

Occurs locally through the Karoo ecosystem of the interior of the Cape to the east of the Province, the karooid parts of the northern Cape (Griqualand West), and the southwestern Orange Free State, where intergrading with the nominate subspecies. Sedentary. A karooid subspecies.

Remarks:

The original material of this subspecies is the only evidence of the occurrence of the present pipit in East Griqualand, and the specimens are clearly migrants from further to the southwest. Winterbottom (1963) gives the wing length of males of *daviesi* as 106-113 mm (n=6) and of one female as 105 mm in selected examples. The distributional range outlined for *daviesi* is most unsatisactory as it is in effect surrounded by populations of shorter winged birds.

(b) ***Anthus vaalensis vaalensis*** Shelley

Anthus vaalensis Shelley, Birds of Africa, 2, 1900: 311: Newcastle, Natal.

Dorsal surfaces saturated buffy olive-brown, with slightly paler edging to the feathers, reddening over the rump. Throat buffy off-white; breast pale vinaceous-buff, with greyish brown streaks; midventer buffy white, or pale stone buff. Tertials edged and tipped buffish olive-brown.

Mean wing length of males is 104,7 mm (sd 2,2; 101-108; n=12)

Mean wing length of females is 97,6 mm (sd 2,36; 93-100; n=10).

Range: The midlands and whole of Upper Natal and adjacent western Zululand to the Orange Free State, the lowlands of northern Lesotho, the highveld of the Transvaal, southeastern Botswana, and, marginally, in high western Swaziland. Largely sedentary. A high level temperate grassland subspecies.

(c) ***Anthus vaalensis chobiensis*** (Roberts)

Meganthus vaalensis chobiensis Roberts, *Ann. Trans. Mus.* 15, 1932: 29: Kabulabula, Chobe River, northern Botswana.

Anthus leucophrys marungensis Chapin, *Rev. Zool. Bot. Africaines.*, 29, 1937: 342: Kasiki, Marungu, Shaba, Zaïre.

Dorsally closely similar to nominate *vaalensis*, but less ochreous or olivaceous, and more vinaceous. Ventrally, with the throat buffier, and ground colour of breast darker, more rufous or vinaceous, buff, with light brown spotting; medioventral plane buffier. Size smaller than *vaalensis*.

Mean wing length of males is 98,2 mm (sd 2,13; 96-102; n=6).

Mean wing length of females is 92,8 (sd 1,94; 91-96; n=5).

Range:

Zimbabwe, adjacent Mozambique and northern Botswana, west to Caprivi and adjacent Kavango region of northeastern Namibia and southeastern Angola, north to Zambia south of *neumanni*, Malawi, adjacent northern Mozambique, southwestern Tanzania and southeastern Zaïre. Recorded as a seasonal breeding visitor in Zimbabwe and Zambia, but the extent of its postbreeding movements has yet to be determined and is presumably related to the thickening of the grass cover following the rains. In Zimbabwe, breeds mainly August-December, and in Zambia, June-October. The seasonal exodus from Zambia is apparently greater than that from Zimbabwe.

Remarks:

The characters enumerated for *marungensis* by Chapin (1953) are essentially those of *chobiensis* compared with *A. v. neumanni*, and the paratypical series may have included specimens of migrants from southern breeding grounds.

(d) ***Anthus vaalensis neumanni*** Meinertzhagen

Anthus leucophrys neumanni Meinertzhagen, *Bull. Brit. Orn. Club* 41, 1920: 23: Ambaca, Cuanza Norte, Angola. New name for *Anthus leucophrys angolensis* Neumann, 1906, not *Anthus angolensis* Bocage, 1870.

Anthus vaalensis muhingae White, *Bull. Brit. Orn. Club* 65, 1944: 6: Muhinga Plain, Nasondoye, Shaba, Zaïre.

Similar over the dorsal surfaces to *chobiensis*. Below, more saturated and buffier, the ground to the breast, sides and flanks deeper, more rusty vinaceous-buff, the spotting light brown. Wings and tail redder. Size large in the west, but similar to *chobiensis* in the east of the range.

Mean wing length of males is 103,0 mm (sd 3,18; 100-108; n=5).

Mean wing length of females is 94,5 mm (sd 2,64; 91,5-97; n=5).

White (1944) gives the wing lengths of eastern elements as males 96-101 mm and 94-99 mm for females, and therefore similar to *chobiensis*.

Range:

The plateau of Angola and the lower basin of the Zaïre River to the Kasai and Shaba, Zaïre, northern and northeastern Zambia and southwestern Tanzania. Precise breeding limits uncertain. Migratory in parts of its range, extending certainly south to Namibia, the northern Cape and Botswana in the southern dry season (from March). A hygric race associated with the miombo savanna ecosystem.

Remarks:

The characters laid down for *muhingae* are an exact redescription of *neumanni* (=*angolensis*), which is not alluded to by White (1944).

(e) ***Anthus vaalensis namibicus*** Clancey

Anthus vaalensis namibicus Clancey, *Cimbebasia* 11, 1989 (1990): 125: Airfield at Karibib, western Damaraland, Namibia.

Differs from *neumanni* in its very much darker and greyer upperparts, about Fuscous. Ventrally with the ground of the breast, sides and flanks deep vinaceous-buff, rather than the rusty buff or tawny of *neumanni*, and with the breast streaking much heavier and slate-grey rather than light brown. There is more contrast between the lateral ventral surfaces and the paler midventral plane. Apparently similar to *A. v. exasperatus* in size.

Wing lengths of 2 males are 99 and 102,5 mm.

Wing lengths of 2 females are 92 and 94,5 mm.

Range:

Currently known only from Bushmanland, Namibia, at Tsumkwe and from western Damaraland at Karibib (three taken on the airfield in midApril and late May by J. Komen).

Remarks:

The available material is all in freshly assumed dress or in the final stages of transitional moult, as in the case of available Namibian material of *neumanni*, which suggests that *namibicus* may, like *neumanni*, be a nonbreeding visitor to western Namibia. It may, however, be the breeding race of southern Angola and northeastern Namibia, as indicated by its collection at Tsumkwe, Bushmanland, but its breeding range remains to be ascertained.

(f) ***Anthus vaalensis exasperatus*** Winterbottom

Anthus vaalensis exasperatus Winterbottom, *Ann. S. Afr. Mus.* 46, 1963: 348: 5 km south of Nata, northeastern Botswana.

Upperparts colder and greyer than in *chobiensis*, the feather centres darker, the effect being a less uniform, somewhat scaled dorsum. Below, whiter over the forethroat and entire midventer, the ground of the breast less extensively buff, and more invaded with white, and spotting browner and sparser. Size much as in *chobiensis*, female still smaller.

Mean wing lengths of males is 100,0 mm (98-101; n=4)

Mean wing lengths of females is 90,5 mm (88,5-92; n=3).

Range:

The Etosha Pan National Park and adjacent xeric areas of northern Namibia, east to Botswana south and east of the Okavango Swamps to the Makgadikgadi Salt Pan and south to the saline pans in the south of the territory. Taken in the nonbreeding season in western Zimbabwe. A relatively well-marked ecological race of salt pans and peripheral arid country.

(g) ***Anthus vaalensis goodsoni*** Meinertzhagen

Anthus leucophrys goodsoni Meinertzhagen, *Bull. Brit. Orn. Club* 41, 1920: 23: Nakuru, Central Highlands, Kenya.

Compared with *chobiensis* markedly less vinaceous and uniform over the upperparts and in this resembling *exasperatus*; rump and uppertail coverts tinged ochreous. Ventrally lighter than *chobiensis*, with the ground to the breast light warm buff, less rufous, the breast with heavier and darker spotting. Size ranging somewhat smaller than *chobiensis*.

Mean wing length of males is 97,6 mm (sd 2,5; 95-101; n=6).

Mean wing length of females is 89,3 mm (sd 1,9; 87-92; 8).

Range:

The highlands of Kenya to the east of the Rift to the southern Uaso Nyiro River, south to the highlands of Tanzania east of Lake Victoria in the Mara/Serengeti region. Precise range and seasonal movements yet to be determined.

(h) ***Anthus vaalensis saphiroi*** Neumann

Anthus leucophrys saphiroi Neumann, *Journ. f. Ornith.* 54 1906: 235: Balassira (Balassire), Harar district, southeastern Ethiopia.

Differs from the Kenyan *goodsoni* in having the dorsal surfaces wood brown or vinaceous, and with the underside

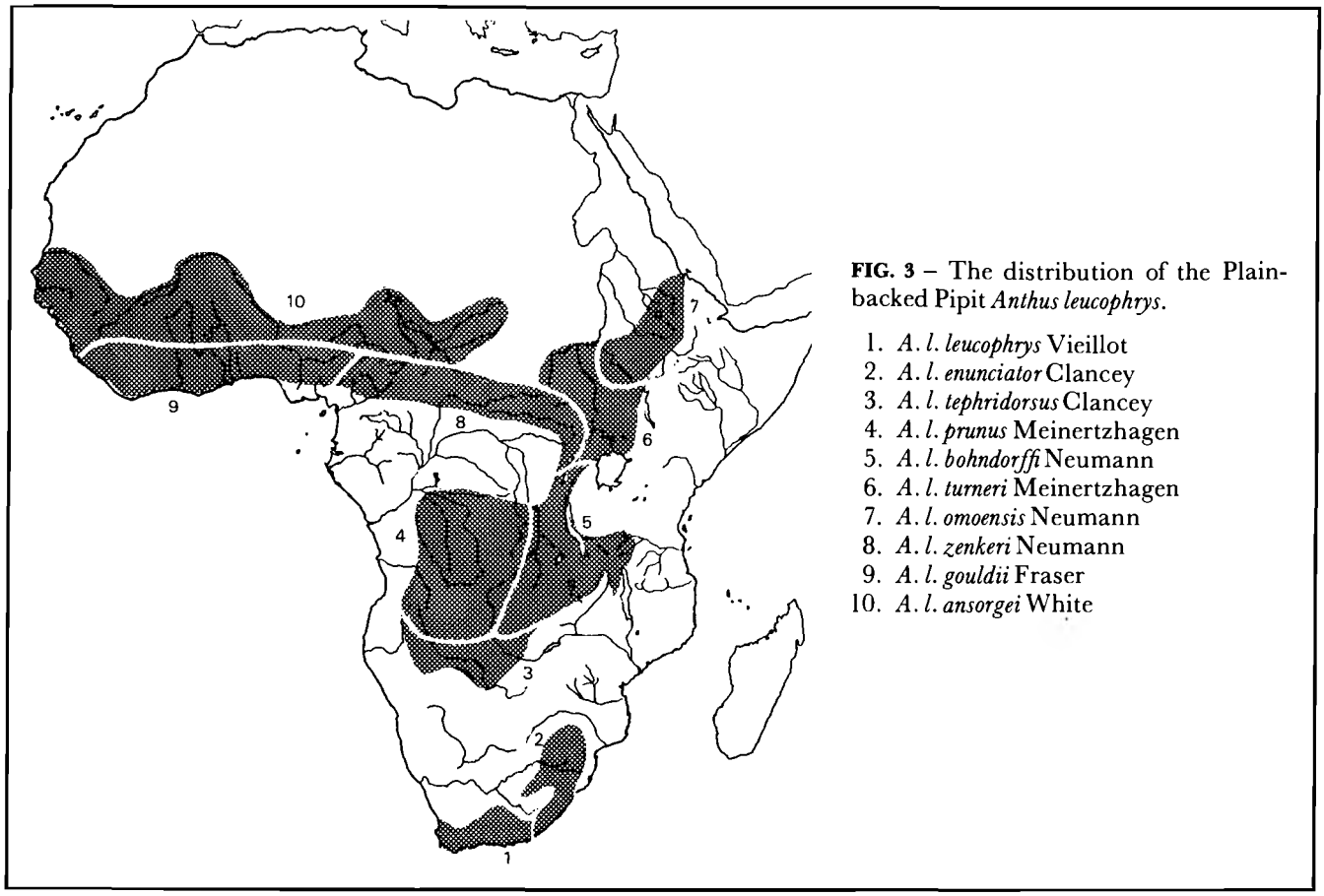


FIG. 3 – The distribution of the Plainbacked Pipit *Anthus leucophrys*.

1. *A. l. leucophrys* Vieillot
2. *A. l. enunciator* Clancey
3. *A. l. tephridorsus* Clancey
4. *A. l. prunus* Meinertzhagen
5. *A. l. bohndorffi* Neumann
6. *A. l. turneri* Meinertzhagen
7. *A. l. omoensis* Neumann
8. *A. l. zenkeri* Neumann
9. *A. l. gouldii* Fraser
10. *A. l. ansorgei* White

more pinkish (light vinaceous), the breast spotting small and somewhat diffuse on a slightly darker buff ground. Size small, as in *goodsoni*.

Range:

Ethiopia in Harar and the northern Ogaden, and northern Somalia, east as far as Sheik. Precise limits uncertain. Some authors extend the range to Shoa, in central Ethiopia, where it would be sympatric with *A. leucophrys omoensis*, but material examined shows no such sympatry between the two sibling species in this stated sector. In arid, stony, thinly grassed *Acacia* savanna in northwestern Somalia.

ANTHUS LEUCOPHRYS Vieillot 1818

Plainbacked Pipit

Diagnostic characters:

Large size, length *ca* 17 cm (males). Compared with similar *A. vaalensis* somewhat smaller, and darker and more olive-brown over the dorsum, less uniform, and rump as back and not light rufous buff. Over face, with whiter supercilium and more contrast between light and dark areas. Ventrally, generally somewhat similar, but geographically highly variable. No white in tail. Base of bill yellowish. Primaries 2-5 emarginate, the notching more distal than in *vaalensis*. Hindclaw *ca* 12 mm. Male larger than female. See Fig. 1.

Range of species:

Fig. 3. Locally from the southwestern and Karoo regions of the Cape to Transkei, Natal and western Zululand, the eastern Orange Free State, Swaziland (in east to Lebombo Mtns), southern Mozambique in Lebombos and highveld of the Transvaal. Further north occurs in northwestern Zimbabwe, northern Botswana and northeastern Namibia, and from Angola and southern Zaïre, east to Malawi, and north to Uganda and western Kenya, Ethiopia and the southern Sudan, again west, north of the Lower Guinea Forest, to northern Zaïre and the Central African Republic, to far West Africa to reach Guinea, Gambia and Senegal. Partially migratory in some parts of its range.

Habitat:

Open short grassland, occasionally with scattered trees, such as *Acacia*, especially where heavily grazed, frequently near forest or plantations, short grass meadows, sward on the fringes of water impoundments and fallow cultivation. Attracted to recently burnt dry grassland and maize fields in the nonbreeding season. Loosely gregarious where numerous when breeding.

Status:

Polytypic with ten subspecies. Widely confused with *A. vaalensis*, but separable from that generally larger species by the diagnostic characters outlined above; the two are frequently sympatric.

References: Meinertzhagen (1920) and Clancey (1967).

Subspecies:

(a) ***Anthus leucophrys leucophrys*** Vieillot
Anthus leucophrys Vieillot, *Nouv. Dict. d'Hist. Nat.*, nouv. ed. 26, 1818: 502: Cape of Good Hope, Cape Province.

Dorsal surfaces cold Dresden Brown, the feathers narrowly edged with a paler colour. Below, breast with ground Warm Buff, broadly streaked with greyish brown. A karooid subspecies.

Mean wing length of males is 98,7 mm (sd 1,9; 96-102; n=12).

Mean wing length of females is 91,5 mm (sd 2,6; 87,5-95; n=6).

Range:

Southwestern and southern Cape and Karoo east to the catchment of the Great Kei River. Taken as a nonbreeding visitor to Natal (Umzinto and inland of Scottburgh).

(b) ***Anthus leucophrys enunciator*** Clancey
Anthus leucophrys enunciator Clancey, *Ann. Natal Mus.* 12, 1952: 261: Ingwavuma, Lebombo Mtns, northeastern Zululand.

In fresh dress (April-June), lighter and less greyish, more ochraceous, above than nominate *leucophrys* (about Saccardo's Umber), the feathers edged dull Tawny-Olive. Below, with ground of breast more saturated Ochraceous-Buff, and entire underside buffier, but with comparable breast streaking.

Mean wing length of males is 97,7 mm (sd 1,6; 95,5-100; n=12).

Mean wing length of females is 91,5 mm (sd 2,3; 87-94; n=10).

Range:

Eastern Cape from the lower Great Kei River drainage, Transkei, Natal and Zululand (mainly a nonbreeding season visitor to eastern lowlands), Orange Free State, central and eastern Transvaal highveld. Some individuals move in the cold, dry season to the eastern low country.

(c) ***Anthus leucophrys tephridorsus*** Clancey
Anthus leucophrys tephridorsus Clancey, *Durban Mus. Novit.* 8, 1967: 109: Kazungula, 72 km west of Victoria Falls, northwestern Zimbabwe.

In freshly moulted dress similar to the nominate race, but more vinaceous over the upperparts. Ventrally a little lighter, with the spotting more restricted to the upper breast, less distributed caudad, and ground warmer buff. Culmen from base shorter than nominate race: 17,5-18,5 versus 19-20 mm. Similar in size to nominate race.

Range:

Northern Namibia mainly along the mid- and lower Okavango River, the Caprivi Strip, the Okavango Swamp region of northern Botswana and northwestern Zimbabwe (at Kazungula). Also the savanna ecotone of southern Angola and southwestern Zambia in the Barotse Province, east to Chunga Pools and Sesheke on the Zambezi. Taken as far east as Livingstone.

(d) ***Anthus leucophrys prunus*** Meinertzhagen
Anthus gouldi prunus Meinertzhagen, *Bull. Brit. Orn. Club* 41, 1920: 24: Catatu River, Benguela, Angola.

More uniform and darker brown (deep Dresden Brown) above than *tephridorsus*, lacking a greyish wash when freshly moulted and less greyish when moderately worn. Slightly deeper, more vinaceous, buffy on breast. Culmen length (17-18 mm) comparably short.

Range:

The plateau of Angola north of the range of *tephridorsus*, north to western Kasai, Zaïre, and east to northwestern Zambia, with specimens from Balovale, Mwinilunga, Salujinga and Kabompo.

(e) ***Anthus leucophrys bohndorffi*** Neumann
Anthus leucophrys bohndorffi Neumann, *Journ. f. Ornith.* 54, 1906: 236: Kasongo, Lualaba River, southeastern Zaïre.

Upperparts ranging blacker brown than in *prunus*, the feather fringes somewhat lighter, imparting a scaled effect when fresh. Ventrally more saturated buffish. A variable subspecies.

Range:

Southern Zaïre to the east of *prunus*, being centred on Shaba Province, northeastern Zambia, Malawi, western northern Mozambique and southwestern Tanzania from the Songwe River to Rukwa and possibly Rwanda and Burundi.

(f) ***Anthus leucophrys turneri*** Meinertzhagen
Anthus gouldi turneri Meinertzhagen, *Bull. Brit. Orn. Club* 41, 1920: 24: Kituni, northwestern Kenya.

Compared with *zenkeri*, which replaces it to the west, more olivaceous and less reddish brown dorsally, but about equally dark. Ventrally rather less saturated buff, and with the breast spotting smaller and largely restricted to the upper half, and not so extended caudad in the form of broad, nebulous dark brown striations. Ventrally, more like *bohndorffi*, but deeper more ochraceous-buff.

Wing lengths of males is 94-100 mm.

Wing length of females is 90-95 mm (Meinertzhagen 1920).

A male and female near topotypes from Kapenguria, Kenya, have wing lengths 100 and 93 mm respectively.

Range:

Central Highlands of Kenya to the west of the Rift, Uganda, the upper Nile Basin in southern Sudan, and southwestern Ethiopia. Limits in northwest of range uncertain. A low rainfall area phenotype.

(g) ***Anthus leucophrys omoensis*** Neumann
Anthus leucophrys omoensis Neumann, *Journ. f. Ornith.* 54, 1906: 235: Ergino valley, between Gofa and Doko, southern Ethiopia.

Darker and more vinaceous than *turneri* over the upperparts. Ventrally markedly saturated vinaceous-buff, darkest on breast and sides, the breast copiously marked and clouded with broad penumbrous striations of dark brown. Similar in size to *turneri*.

Range:

The highlands of Ethiopia, including Eritrea, generally to the north of the distribution of *saphiroi*. Intergrades to the southwest of its range with *turneri*.

(h) ***Anthus leucophrys zenkeri*** Neumann
Anthus leucophrys zenkeri Neumann, *Journ. f. Ornith.* 54, 1906: 235: Yaounde, Cameroon.

Compared with *gouldii* similar over the dorsal parts, differing in being more saturated and redder over the ventral surface (as in *turneri*), differing from both in having the breast heavily streaked and clouded with nebulous dark brown striations. The ventral facies recalls *omoensis*, which differs in being more strongly vinaceous and is darker above. Hindclaw generally rather short: 8-12 mm. Size as in *gouldii*.

Range:

Northern Cameroon, southern districts of Chad and the Central African Republic, east generally to the north of the Lower Guinea Forest to northern and eastern Zaïre, and the far west of Uganda in the Ruwenzori Range district and possibly Kigezi.

(i) ***Anthus leucophrys gouldii*** Fraser
Anthus gouldii Fraser, *Proc. Zool. Soc. London* 1843: 27: Cape Palmas, Liberia.

Compared with *zenkeri* similar over the upperparts, but differs below in being paler buff and with the breast

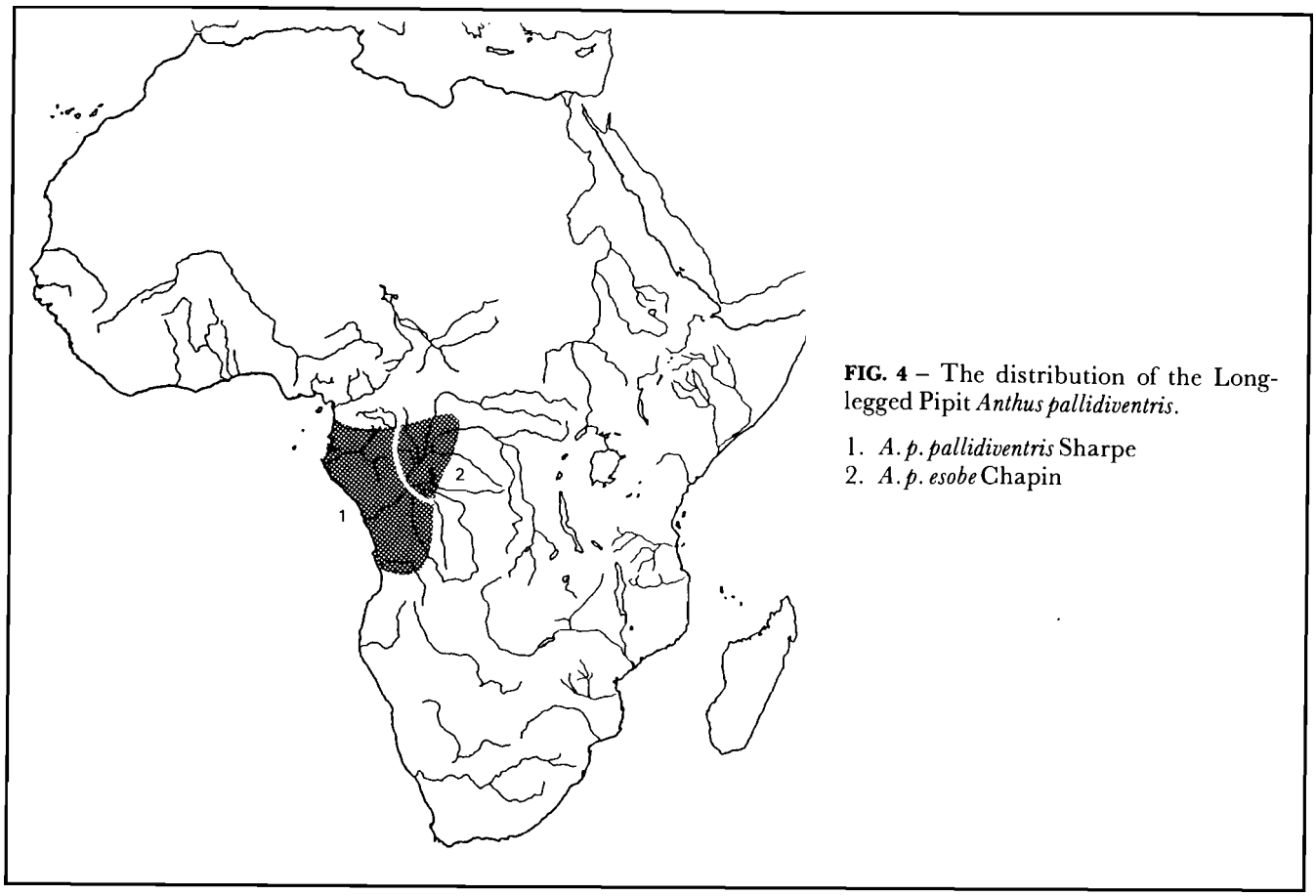


FIG. 4 – The distribution of the Long-legged Pipit *Anthus pallidiventris*.

1. *A. p. pallidiventris* Sharpe
2. *A. p. esobe* Chapin

streaking moderate and not so broad and penumbrous and less extended caudad.

Mean wing length of males is 93,0 mm (sd 2,2; 90-96; n=12).

Mean wing length of females is 88,0 mm (sd 1,1; 86,5-89; n=6).

Range:

The Upper Guinea Forest region of West Africa from southern Guinea, Sierra Leone, Liberia and the Ivory Coast, east to Benin and Nigeria.

(j) ***Anthus leucophrys ansorgei*** White

Anthus leucophrys ansorgei White, *Ibis* 90, 1948: 549: Bissau, Guinea Bissau.

Somewhat similar to *turneri*, but ranging paler and more buffish brown above; below paler on average with breast spotting less heavy. Comparable in size. Compared with *gouldii* generally lighter and ranging larger in size.

Mean wing length of males is 97,7 mm (sd 1,6; 95-99; n=6).

Mean wing length of females is 89,5 mm (88-90,5; n=3)

Range:

The Guinean savanna and Sahel region from Senegal, Gambia, Guinea Bissau and the interior of Guinea, east north of *gouldii* to northern Nigeria, northern Cameroon, Chad and the Central African Republic. Birds from Darfur, Sudan, are probably best placed with this arid region subspecies.

Remarks:

This is not a particularly satisfactory race and could be merged with *turneri*. In this event, *turneri* would have a range comparable to that of other subSaharan races of terrestrial birds such as *Cursorius temminckii temminckii* and *Macronyx croceus croceus*.

ANTHUS PALLIDIVENTRIS Sharpe 1885

Longlegged Pipit

Diagnostic characters:

Large size, length *ca* 17 mm (males). Dorsum light brownish olivaceous, with paler edges to the feathers imparting a slightly scaled effect. On face, supercilium buffy white; ear coverts dark brown, streaked off-white. Below, creamy white; breast ground pale vinaceous-buff, heavily streaked with broad penumbrous greyish brown striae. Wings with edging to coverts and remiges buffy white to sandy brown. Tail with outer rectrix buffy white; penultimate quill with similar outer vane and along rachis of inner. Rest of tail brown, the innermost rectrices as dorsum. Primaries 2-5 emarginate. Hindclaw length <15 mm; tarsal length 29-33,5 mm. Male larger than female.

Range of species:

Fig. 4. Locally distributed from northwestern Angola to western and central Zaïre in the Zaïre River basin, the Congo Republic and Gabon. Apparently seasonally nomadic.

Habitat:

Occurs in pairs and small parties on closely grazed grassland. Its habitat apparently differs little from that of the allopatric but closely allied Plainbacked Pipit *A. leucophrys*.

Status:

Polytypic with two subspecies. The long tarsal (29-33,5 mm) and hindclaw lengths (14-15 mm), indicate that it inhabits thicker and often longer grass than *A. leucophrys*. In *leucophrys*, the tarsal length ranges between 25,5 and 29 mm. In nominate *A. vaalensis* the tarsal length is 25,5-29 mm.

Reference: Chapin (1953).

Subspecies:

(a) ***Anthus pallidiventris pallidiventris*** Sharpe
Anthus pallidiventris Sharpe, *Cat. Birds Brit. Museum* 10, 1885: 560: Gabon.

Dorsum light olivaceous brown, the feathers edged paler. Ventrally, with breast light vinaceous-buff, marked with broad greyish brown nebulous striations.

Wing length of males is 97-103 mm.

Wing length of females is 89-95 mm.

A male and a female from northern Angola had wing lengths of 97 and 95 mm and tarsal lengths of 30,5 and 32 mm respectively. Chapin (1953) gives a range of tarsal lengths of 29-33,5 mm, for Zaïrean specimens.

Range:

Northwestern Angola north of *ca* 10°S, Cabinda, the valley of the lower Zaïre, the Republic of Congo and Gabon.

(b) ***Anthus pallidiventris esobe*** Chapin
Anthus pallidiventris esobe Chapin, *Rev. Zool. Bot. Africaines*, 29, 1937: 343: Eala near Mbandaka, Lukolela, Zaïre.

Differs from the nominate race in being darker, more fuscous, over the upperparts, with duller edges to the feathers. Below, with breast rather deeper buff and the spotting heavier and blacker. Similar in size to nominate race.

Range:

Middle basin of the Zaïre River, with records from Mbandaka, Lukolela and Bolobo, central Zaïre.

ANTHUS MELINDAE Shelley 1900

Malindi Pipit

Diagnostic characters: Moderately large, length *ca* 16,5 cm (males). Dorsum warm earthen brown, with slightly darker centres to the feathers. Face brownish, the ear coverts streaked with white, and with the supercilium and eyelids whitish. Below buffy white, the breast darker buff and it and the lateral surfaces broadly streaked dark brown; undertail coverts buff streaked brown. Tertials and wing coverts edged rusty buff. Tail brown, the outer two pairs of rectrices light buff. Primaries 2-5 emarginate. Hindclaw relatively long. Male larger than female. Bill brightly yellowish basally. See Fig. 5.

Range of species:

Fig. 6. Coastal and riparian grasslands of eastern Kenya from about Malindi to the lower Tana River (Britton & Britton 1978). There are old records from as far south as Mombasa and recorded inland at Maji ya Chumvi and Samburu, Kenya. Present in southwestern Somalia as far as Giohar, 50 km north of Balabad. Collected at Hawaala Buray, near Balabad (02°26 'N, 45°17 'E) and on the coast at Mallable, 30 km northeast of Mogadishu (02°12' N, 45°37'E). In Kenya, described as numerous from Ngomeni to Karawa and in the grasslands of the lower Tana (Britton 1980). Resident.

Habitat:

Coastal grasslands.

Status:

Polytypic with two subspecies. Relationship with other *Anthus* spp uncertain. Similar to *A. lineiventris*, but lacks yellow edgings to feathers of wings, axillars and tail, and similarities probably the result of convergence.

References: Britton & Britton (1978) and Colston (1982).

Subspecies:

(a) ***Anthus melindae melindae*** Shelley
Anthus melindae Shelley, Birds of Africa, 2, 1900: 305: Malindi, coastal Kenya (3°13 'S, 40°07 'E).

Dorsum warm earthen brown with slightly darker centres to feathers. Below light buff, the breast and sides darker, which surfaces are broadly streaked with dark brown. Size large.

Mean wing length of males is 85,6 mm (83-91; n=5).

Wing length of two females is 83 mm (Colston 1982).

Range:

Southeastern Kenya as given above and inland in southern Somalia to Balabad.

(b) ***Anthus melindae mallablensis*** Colston
Anthus melindae pallidus Colston, *Bull. Brit. Orn. Club* 102, 1982: 113: Mallable, 30 km northeast of Mogadishu, southwestern Somalia.
Anthus melindae mallablensis Colston, *Bull. Brit. Orn. Club* 107, 1987: 92, nom. nov. pro *Anthus melindae pallidus* Colston, 1982, not *Anthus bogotensis pallidus* Carriker, 1933.

Compared with the nominate race, paler and more ashen above, and wings lighter, the edging to the tertials and

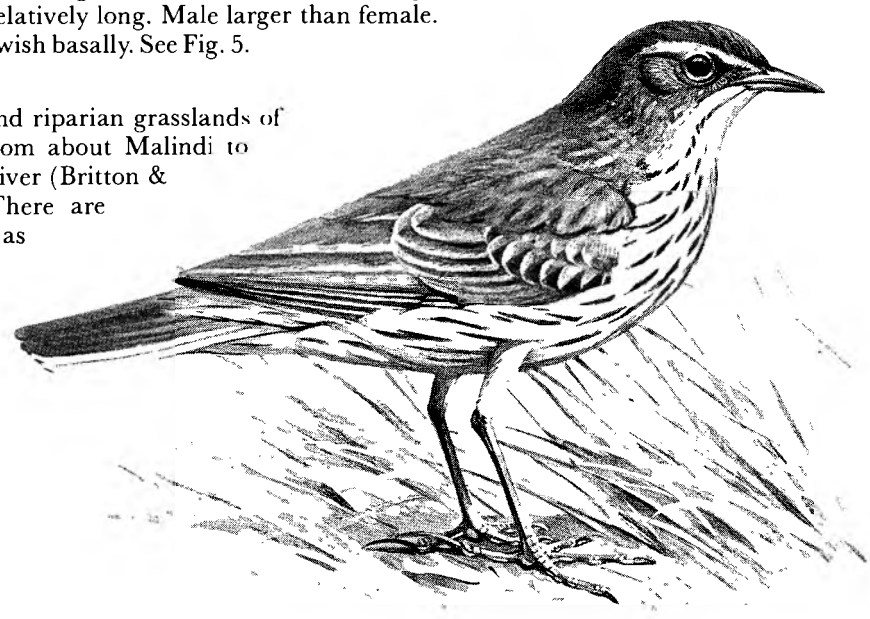


FIG. 5 – Malindi Pipit *A. melindae*. Note faint darker streaking over the dorsal surface and the extensively streaked venter.

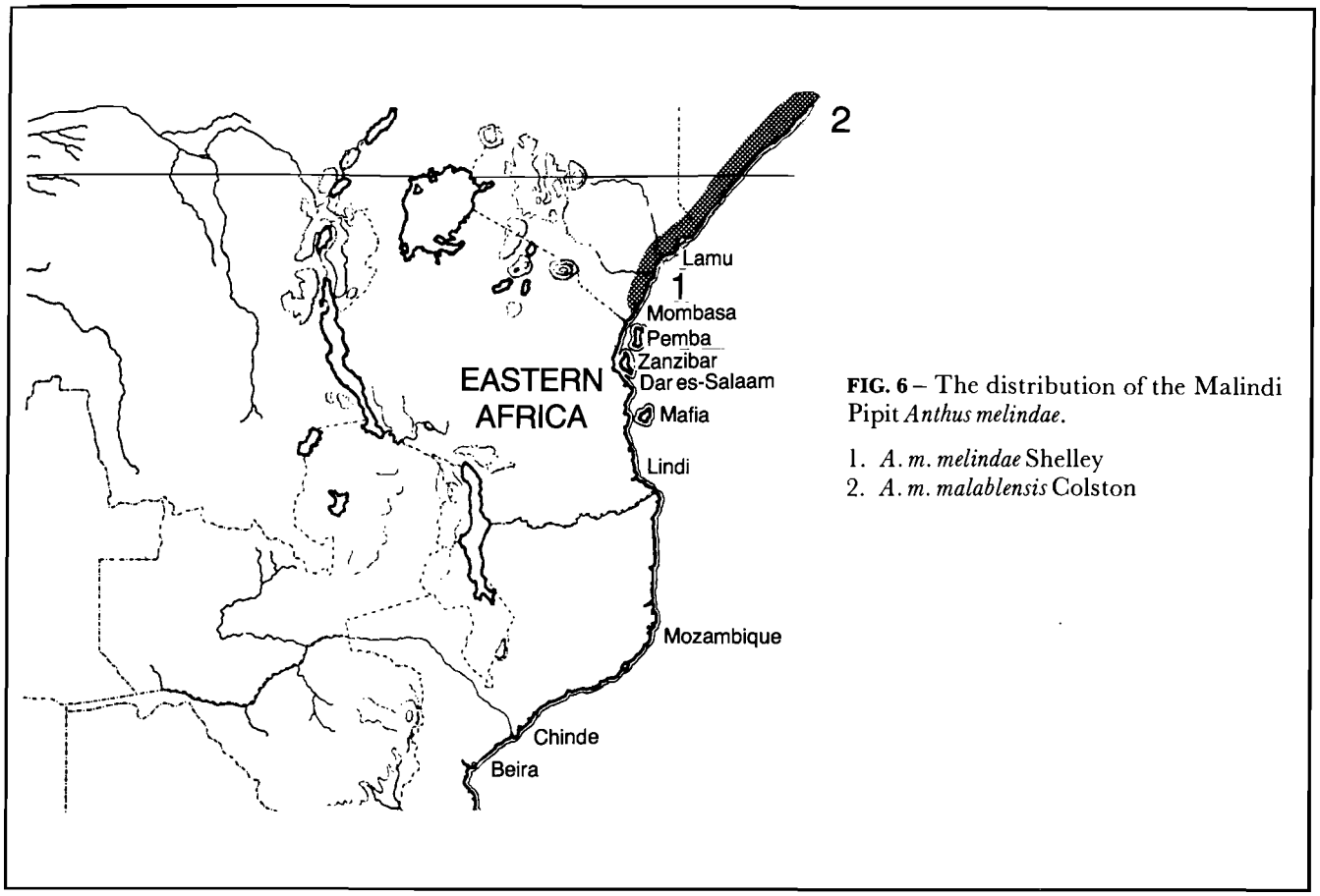


FIG. 6 – The distribution of the Malindi Pipit *Anthus melindae*.

1. *A. m. melindae* Shelley
2. *A. m. malablensis* Colston

coverts less rusty. Ventrally whiter, the breast and lateral surfaces paler buff, and shaft streaking to same finer and lighter; undertail coverts creamy white rather than buff. Tail paler on outer two pairs of retrices. Size smaller than nominate race.

Mean wing length of females is 77,7 mm (76-79; n=3).

Wing length of males is unknown.

Range:

Known only from the coast of southern Somalia at the type-locality.

ANTHUS SIMILIS Jerdon 1840

Longbilled Pipit

Diagnostic characters:

Size large, length *ca* 18,5 cm (males). Upperparts deep umber brown, the feathers narrowly edged with dull tawny or ochreous, imparting a streaked effect. Face brownish, the supercilium pale buff and ear coverts narrowly streaked buff. Below, largely pale vinaceous-buff, the breast well streaked with dark brown. In wings, tipping to secondary and median coverts light buff, forming two wing bars. Tail dark brown, the innermost rectrices lighter; outermost rectrices buffy white on both outer vane and deep wedge on inner; penultimate rectrices closely similar, and antepenultimate pair blackish only tipped with buffy white; light and dark areas in all diffusely differentiated. Primary 1 shorter than pp 2 and 3 and equalling p 4; pp 2-5 emarginate. Hindclaw moderate 10 mm. Base of lower mandible flesh-coloured. See Fig. 7.

Range of species:

Fig. 8. In the Afrotropics, ranges from southwestern Angola (and as an isolate on Mt Moco), Namibia and the Cape (including the Cape north of the Orange River) to the Orange Free State, the Transvaal highveld, Lesotho, Transkei, Natal and Zululand and Swaziland. Further north in Africa from southeastern (in Marungu) and eastern Zaïre, Rwanda and Burundi to western and northern Tanzania, Uganda and adjacent southern Sudan, Kenya (except northeast), Ethiopia, and Somalia in the north and southwest. Isolated populations occur in Darfur, western Sudan, in Aïr, Niger, and on Socotra.

Other races of *A. similis* extend the range of the species to the Arabian Peninsula, the Middle East and Iran, east to India and Burma.

Habitat:

Inhabits upland and mountainous country on broken and frequently very stony ground with outcrop rock, thin, scattered grass tufts, stunted scrub and herbage.

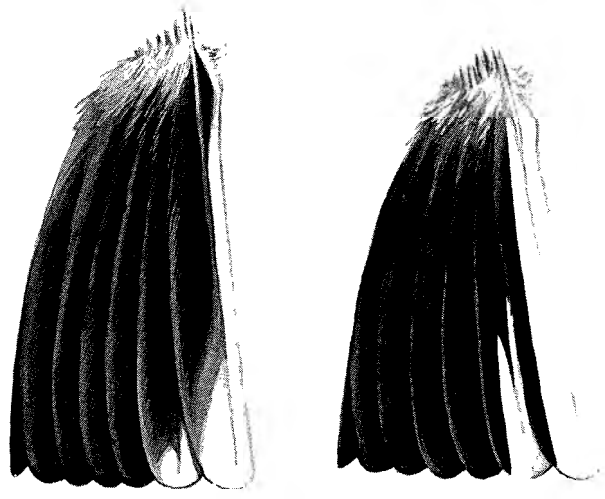


FIG. 7 – The ventral aspect of tails (right half) to show marked difference in the lateral pattern between Longbilled *A. similis* (left) and Wood *A. nyassae* Pipits (right).

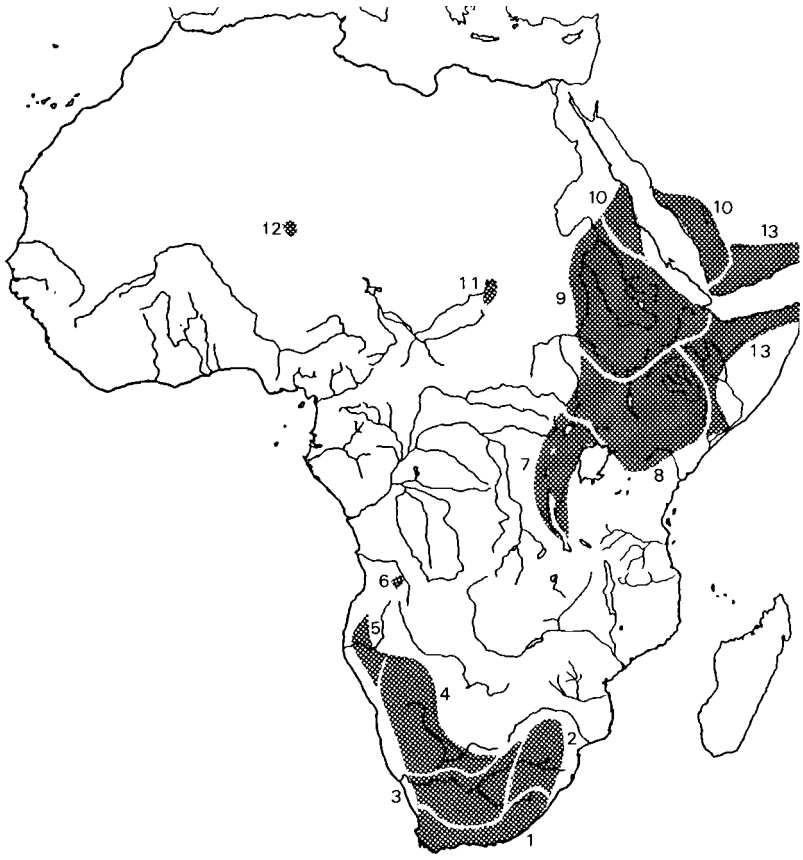


FIG. 8 – The distribution of the Long-billed Pipit *Anthus similis in the Afrotropics.*

1. *A. s. primarius* Clancey
2. *A. s. petricolus* Clancey
3. *A. s. nicholsoni* Sharpe
4. *A. s. leucocraspedon* Reichenow
5. *A. s. pallidilinctus* Clancey
6. *A. s. moco* Traylor
7. *A. s. dewittei* Chapin
8. *A. s. chyuluensis* van Someren
9. *A. s. hararensis* Neumann
10. *A. s. arabicus* Hartert
11. *A. s. jebelmarrae* Lynes
12. *A. s. asbenaicus* Rothschild
13. *A. s. nivescens* Reichenow

Distribution of *A. s. sokotrae* Hartert is not shown.

Often on desert edge in such country, and even among low trees, such as junipers, where the intervening bare ground is open and stony. In some regions attracted to recently burnt grassland, often in association with other pipits. Not markedly gregarious and often solitary. There is some altitudinal movement in parts of the range, but in the main sedentary.

Status:

Highly polytypic with fourteen races in Africa. Seen as a relatively recent invasive species into the Afrotropics.

References: Clancey (1956, 1964, 1985a, 1986a, 1987b).

Subspecies:

(a) ***Anthus similis primarius***, subsp. nov.

Type: Male, adult. Pitseng Pass at *ca* 1 767 m asl, north-eastern Cape/Transkei border. 5 August, 1982. Collected by J.M. Mendelsohn and party. In the collection of the Durban Natural Science Museum, DM33 823.

Length of wing is 100 mm and of tail is 78,5 mm.

Compared with *petricolus*, feathers of crown almost black, and those of mantle and scapulars Mummy Brown, edged dull Dresden Brown. Below, more dusky ochraceous-buff, the moustachial streaks and breast striae much blacker, the breast-streaking more extended caudad. Ventral surfaces with throat less white, and rest dull buff and somewhat streaked. Wings darker, with paler fringes to the feathers. Tail darker. Males are slightly larger than females.

Mean wing length of males is 99,1 mm (sd 3,3; 95-104; n=6).

Mean wing length of females is 92,8 mm (90-95; n=3).

Range:

The mountains of the southwestern and southern Cape, northeast to the Drakensberg Range in the northeastern Cape and adjacent Transkei (Pitseng, Ongeluksnek), and possibly reaching the lower limits of the alpine zone of the Drakensberg in southern Lesotho. Taken near Loteni, in the Natal Drakensberg and at Blood River. Worn breeding material from Nkandla, Zululand, seems attributable to *primarius*.

(b) ***Anthus similis petricolus*** Clancey

Anthus similis petricolus Clancey, *Durban Mus. Novit.* 4, 1956: 280: Mamathes, near Teyateyaneng, Lesotho, at 1 737 m asl.

Not as dark and broadly and heavily streaked as *A. s. primarius*, the edges to the dorsal feathering redder and about Tawny-Olive rather than dull Dresden Brown. Below, with the throat and belly surfaces lighter and much clearer vinaceous-buff, not so obfuscated with dusky; breast streaking finer and brown rather than almost black.

Mean wing length of males is 97,0 mm (sd 1,8; 94-100; n=10)

Mean wing length of females is 92,4 mm (sd 1,9; 88,5-95; n=10).

Range:

The moist plateau of the Transvaal, mainly in the east, from the Soutpansberg, south to the eastern Orange Free State, the lowlands of northern Lesotho, western Swaziland, Natal and western Zululand, and the Transkei (including East Griqualand) below the Drakensberg escarpment. Intergrades in the west of the Orange Free State with the following subspecies.

(c) ***Anthus similis nicholsoni*** Sharpe

Anthus nicholsoni Sharpe, in Layard & Sharpe's Birds of South Africa, new ed., 1884: 536: Sigonell = Makwassie, south of Wolmaransstad, southwestern Transvaal.

Lighter and vinaceous or ochraceous, less saturated reddish (near Isabella Color) over the dorsum than in *petricolus*, the dark streaking reduced. Ventrally, paler and more vinaceous, less buffy, with the breast-streaking finer and lighter brown. Size similar than *petricolus*.

Mean wing length of males is 97,5 mm (sd 2,2; 95-100; n=11).

Mean wing length of females is 92,6 mm (sd 1,7; 91-96; n=7).

Range:

The valley of the Orange River from northern Little Namaqualand (reaching the coast at Port Nolloth), east to the northern Cape in Griqualand West and the northern and northeastern Karoo districts of the Cape to the dry west of the Orange Free State, the southwestern Transvaal and the southeast of Botswana.

(d) ***Anthus similis leucocraspedon*** Reichenow

Anthus leucocraspedon Reichenow, *Ornith. Monatsber.* 23, 1915: 155: Windhoek, Namibia.

Still paler and more vinaceous over the upperparts than in the case of *nicholsoni*, with further reduced dark streaking, appearing more uniform. Below more wholly pinkish buff with reduced, often vestigial, pale brown breast-streaking. Bill ranging longer: 19,5-22 mm from skull. Similar in size to *nicholsoni*.

Range:

Namibia from north of the lower Orange River catchment and the western and northern parts of the northern Cape (north of West Griqualand), north to the Damaraland highlands to south of the Etosha Pan, but reaching east as far as Tsumeb and Grootfontein.

(e) ***Anthus similis palliditinctus*** Clancey

Anthus similis palliditinctus Clancey, *Durban Mus. Novit.* 4, 17, 1956: 287: Sesfontein, Kaokoland, northwestern Namibia.

Greyer above than *leucocraspedon*, less pinkish or sandy buff. Ventrally, lighter, less intensely buffish, but with comparably reduced or vestigial light brown breast-streaking.

Culmen length is 19,5-20,5 mm. Size similar to *leucocraspedon* and *nicholsoni*.

Range:

The Namib edge of Kaokoland and probably the western aspects of the Etosha Pan, northwestern Namibia. Also along the desert edge of adjacent southwestern Angola in Mossamedes and Cunene.

(f) ***Anthus similis moco*** Traylor

Anthus (similis) moco Traylor, *Bull. Brit. Orn. Club* 82, 1962: 77: summit of Mt Moco, Huambo, Angola.

Described as similar to *hararensis* (see below), but with the breast-streaking heavier and with a longer mean tarsal length (27,5-28 versus 24-28 mm) and shorter culmen length (16,5-18 versus 18-20 mm). Similar in size to *hararensis*. Not examined.

Range:

Only known from the summit grassland of Mt Moco, in Huambo, Angola. Perhaps on the summits of other peaks in the same province.

Remarks:

Validity requires to be assessed with a larger series against material of *A. s. dewittei*.

(g) ***Anthus similis dewittei*** Chapin

Anthus similis dewittei Chapin, *Rev. Zool. Bot. Africaines* 24, 1937: 344: Kasiki, Marungu Highlands, Shaba, southeastern Zaïre, at 2 200 m asl.

Anthus similis hallae White, *Bull. Brit. Orn. Club* 77, 1957: 30: Lake Karange, Ankole, southwestern Uganda.

Differs from *chyuluensis* (and *hararensis*) in being more olivaceous grey over the upperparts, lacking the ochraceous or tawny nuance, the dark streaking reduced in intensity. Ventrally, off-white or pale stone colour with little or no buff tinge, the breast and lateral streaking heavier and blacker brown. Size similar to these two races.

Mean wing length of males is 96,7 mm (sd 2,2; 95-100; n=4).

Mean wing length of females is 92,6 mm (sd 1,6; 91-96; n=8).

Range:

The Marungu Highlands, southeastern Zaïre, north to the northern end of Lake Tanganyika, and east of the Rift to Rwanda, Burundi and the Ankole/Kigezi region of southwestern Uganda.

(h) ***Anthus similis chyuluensis*** van Someren

Anthus similis chyuluensis van Someren, *Journ. E. Afr. & Uganda Nat. Hist. Soc.* 14, 1939: 57: Chyulu Hills, southeastern Kenya.

Upperparts dark umber brown, the feathers narrowly fringed Buckthorn Brown. Ventrally, with breast and lateral surfaces Warm Buff, the breast streaked with dark brown; forethroat and midventer Pale Pinkish Buff.

Mean wing length of males is 100,3 mm (sd 2,0; 98-104,5; n=17).

Mean wing length of females is 93,1 mm (sd 2,5; 90-96,5; n=10).

Range:

Kenya from Lodwar, Lake Turkana and Marsabit, south to the Chyulu and Taita Hills. Also northern Tanzania from Serengeti east to the Paré Mtns, and in Uganda to the north of Lake Victoria to reach the Kidepo Valley in the north and in the west the highlands to the west of Lakes George and Edward. Intergrades with *dewittei* in southwestern Uganda.

(i) ***Anthus similis hararensis*** Neumann

Anthus nicholsoni hararensis Neumann, *Journ. f. Ornith.* 54, 1906: 233: Abu Bekr, near Harar, southeastern Ethiopia.

Anthus similis neumannianus Hartert & Collin, *Novit. Zool.* 34, 1927: 50: Gardulla, Lake Abaya, Ethiopia (nom. nov. for *Anthus nicholsoni longirostris* Neumann, 1905, pre-occupied by *Anthus obscurus longirostris* Brehm, 1866).

Similar to *chyuluensis* as described above and in size, differing in having the forethroat and entire midventer much darker (about Light Buff).

Mean wing length of males is 99,0 mm (sd 2,7; 95-103; n=11).

Mean wing length of females is 94,1 mm (sd 1,2; 92,5-96; n=6).

Range:

The highlands of Ethiopia except for the northern provinces of Tigré and Eritrea. In the south of Ethiopia reaches the Kenyan border at Mega and Yavello.

(j) ***Anthus similis arabicus*** Hartert

Anthus sordidus arabicus Hartert, *Novit. Zool.* 24, 1917: 457: Menakha, Yemen.

Less saturated dorsally than *hararensis*, with the shaft-streaking browner, less blackish, and the feather fringes not so strongly ochraceous. Ranging smaller in size in Arabian birds.

Specimens from Arabia and Yemen:

Mean wing length of males is 96,9 mm (sd 1,7; 93,5-99; n=7).

Mean wing length of females is 90,2 mm (sd 2,0; 88-93; n=6)

Mean wing length of African males is 99,5 mm (sd 3,9; 96-105; n=6). One female wing length is 93 mm.

Range:

The Red Sea hills of southeastern Sudan, south to Tigré Province and Eritrea, Ethiopia, and in the southwestern Arabian Peninsula from Asir-Tihama, Saudi Arabia, south to Yemen.

(k) ***Anthus similis jebelmarrae*** Lynes
Anthus sordidus jebelmarrae Lynes, *Bull. Brit. Orn. Club* 41, 1920: 16: Jebel Marra, Darfur, western Sudan.

Compared with both *chyuluensis* and *hararensis* plainer and less streaked, the dorsum, wings and dorsal tail bright tawny-buff. Ventrally, bright clear buff, the breast-streaking obsolete, and when present restricted to the lateral surfaces. Size smaller and similar to *arabicus*.

Mean wing length of males is 96,5 mm (sd 1,9; 94-99; n=12).

Mean wing length of females is 89,5 mm (sd 2,0; 87-92; n=10).

Tail length of males is 69-74 mm.

Tail length of females is 67-71 mm.

Range:

Restricted to the highlands of Darfur, western Sudan.

(l) ***Anthus similis asbenaicus*** Rothschild
Anthus sordidus asbenaicus Rothschild, *Bull. Brit. Orn. Club* 41, 1920: 33: Mt Baguézane, Aïr, Niger.

Paler, more vinaceous sandy, less saturated above than *jebelmarrae*, the streaking perhaps heavier. Below, less strongly buffish, with the breast-streaking rather bolder. Size similar to, but tail distinctly longer than in *jebelmarrae*:

Tail lengths of males is 75,5-80,5 mm.

Tail lengths of females is 70,5-74,5 mm.

Range:

The highlands of Aïr (Asben), in Niger, West Africa.

(m) ***Anthus similis nivescens*** Reichenow
Anthus nivescens Reichenow, *Ornith. Monatsber.* 13, 1905: 179: Chisimoio (Kismayu), southern Somalia.

Differs from *hararensis* in being less heavily streaked over the upperparts, the feathers edged paler and greyer. Ventrally lighter, more vinaceous tinged, not strongly suffused with buff, and forethroat and midventer much whiter. Size smaller than *hararensis*, particularly in the female.

Northern Somali specimens:

Mean wing length of males is 95,3 mm (sd 2,0; 93-99,5; n=11).

Mean wing length of females is 88,5 mm (sd 1,9; 85-91,5; n=11).

Range:

Somalia, mainly in the northern high escarpment country (east to about Medishe), and locally to the southwest of the territory. Perhaps to adjacent parts of Kenya. Occurs north of the Gulf of Aden from southern Yemen (at Taizz) and the Amiri highlands, east to the Hadramaut.

(n) ***Anthus similis sokotrae*** Hartert
Anthus sordidus sokotrae Hartert, *Novit. Zool.* 24, 1917: 457: Alilo Pass, Socotra.

Darker and more earthen brown above than in the case of *A. s. nivescens* with the edging to the dorsal feathers still greyer. Below, whiter, less vinaceous or buffish, with the breast and lateral streaking both darker, heavier and more contrasted. Wings and tail darker. Size as in *nivescens*.

Range:

Confined to the island of Socotra.

ANTHUS NYASSAE Neumann 1906

Wood Pipit

Diagnostic characters:

Moderately large, length 16,5 cm in males. Dorsum dark brown, the feathers fringed with dull ochraceous or dull tawny, much as in some races of *A. similis*. Venter much as in latter and varying geographically. Differs from *similis* subspp. in having the tail shorter (<71 mm in males) and the outermost rectrix largely buffish white, the basal edge to the inner vane contrastingly blackish; penultimate rectrix with outer vane and deep wedge on inner buffy white, with sharp contrast to black inner edge; no buffy white on antepenultimate rectrix. The central rectrices are narrower = <10 mm. Wing formula similar, with primaries 2-5 emarginate; p1 = p4, pp2 and 3 longer, p5 much shorter than pp 1-4. Feet smaller than in *similis* subspp. with central toe and claw <19 mm, versus 20 mm. The hindclaw length is similar. Base of bill flesh-coloured. The male larger than the female. See Fig. 7.

Range of species:

Fig. 9. The *Brachystegia* and associated woodland savannas of the plateau of Angola, northeastern Namibia, Zaïre south of the Lower Guinea Forest, Zambia, Malawi, western northern Mozambique and southeastern and southwestern Tanzania. Also as an isolate south of the Zambezi in Zimbabwe and adjacent southern Mozambique.

Habitat:

Lightly grassed ground stratum of temperate *Brachystegia* and associated savanna woodland types. Feeds on the ground under trees and in woodland clearings, flying up to the midstratum when flushed. Not noticeably gregarious and apparently sedentary.

Status:

Moderately polytypic with four subspecies. Regarded as a species derived from an earlier invasion of the Afrotropics by a longbilled pipit ancestor.

References: Dowsett & Dowsett-Lemaire (1980) and Clancey (1985a, 1989b).

Subspecies:

(a) ***Anthus nyassae frondicolus*** Clancey
Anthus similis frondicolus Clancey, *Durban Mus. Novit.* 7, 1964: 178: Charama Plateau, *ca* 24 km west of Gokwe, northwestern Zimbabwe.

Mantle deep sepia, the feathers edged dull vinaceous or isabelline. Ventrally, light vinaceous-buff, the breast and sides darker, the breast moderately streaked with dark brown.

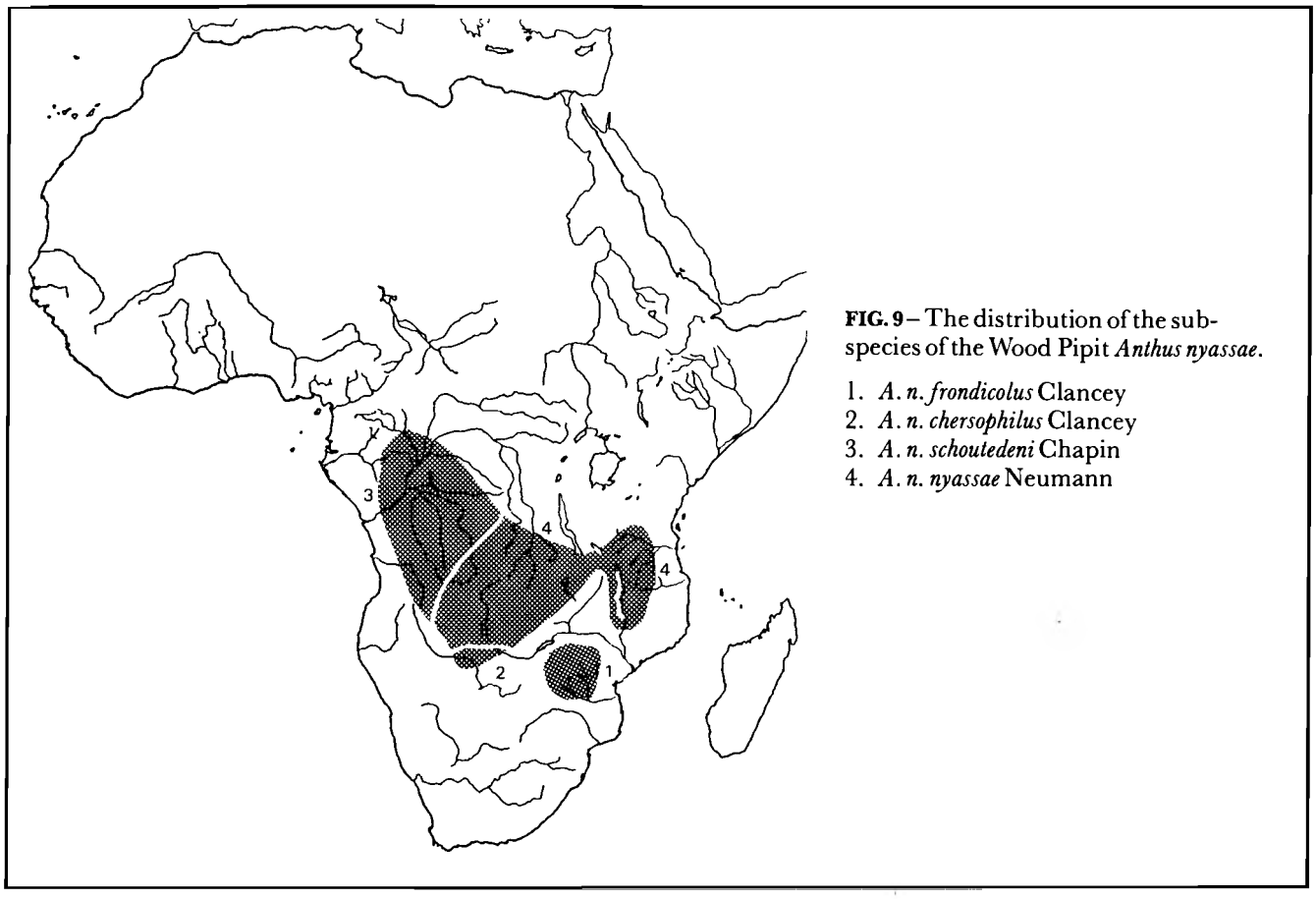


FIG. 9 – The distribution of the subspecies of the Wood Pipit *Anthus nyassae*.

1. *A. n. frondicolus* Clancey
2. *A. n. chersophilus* Clancey
3. *A. n. schoutedeni* Chapin
4. *A. n. nyassae* Neumann

Mean wing length of males is 95,8 mm (sd 3,1; 91-99; n=5).
Wing length of females is 87,5-89 mm.

Range:

Locally distributed in the miombo tracts of Zimbabwe and in adjacent southern Mozambique (not on the littoral plain).

(b) ***Anthus nyassae chersophilus*** Clancey
Anthus nyassae chersophilus Clancey, *Cimbebasia* 10, 1988 (1989): 47: near Andara, Okavango River, Kavango, northeastern Namibia.

Not as saturated dorsally as the previous subspecies, and with the superciliary streak starkly whiter. Below, throat white; ground to breast pale light vinaceous, not buff, the streaking more diffuse and sharply terminated caudad; rest of underside white, not buff. Wings paler, and light surfaces to outer rectrices whiter. Size similar to *frondicolus*.

Mean wing length of females is 87,5 mm (sd 1,3; 86-89; n=4).

Range:

Presently only known from the type-locality, but almost certainly on north bank of the Okavango River in southern Cuando-Cubango, Angola, east to the Caprivi Strip, northeastern Namibia, and the Barotse Province of Zambia.

(c) ***Anthus nyassae schoutedeni*** Chapin
Anthus similis schoutedeni Chapin, *Rev. Zool. Bot. Africaines* 24, 1937: 345: Kwamouth, lower Kasai River, central Zaïre.

More drab brown over the dorsal head and hind neck, and mantle and scapulars less rufous and saturated than in nominate *nyassae*. On underside paler buff, but with the breast-streaks heavier and darker, often forming blotches in well-marked specimens. A less rufescent race than the nominate.

Mean wing length of males is 92,1 mm (sd 2,8; 90-98; n=7).
Mean wing length of females is 87,4 mm (sd 1,8; 84-90; n=8).

Range:

The miombo of western and northern Angola, and the lower Zaïre River basin in southern Gabon and the Congo Republic (northern limits uncertain), and in the Kasai and western Shaba, Zaïre. Perhaps reaching extreme northwestern Zambia.

(d) ***Anthus nyassae nyassae*** Neumann
Anthus nicholsoni nyassae Neumann. *Journ. f. Ornith.* 54, 1906: 233: between Sangesi and Songea, southeastern Tanzania.

Upperparts redder and more saturated than *frondicolus*. Ventrally wholly deeper and more rufous buff, the ground to the breast streaking often more ochraceous rusty. Similar in size to *frondicolus*.

Mean wing length of males is 91,8 mm (sd 3,1; 88-97; n=6).
Mean wing length of females is 87,3 mm (83-88; n=4).

Range:

Zambia and adjacent Angola, southeastern Zaïre in Shaba, southwestern and southeastern Tanzania, western northern Mozambique and Malawi. The zone of contact with *schoutedeni* in the west remains to be determined.

ANTHUS CINNAMOMEUS Rüppell 1840

Grassveld Pipit

Diagnostic characters:

Moderately large; length *ca* 16,5 cm (males). Dorsal surfaces dull olivaceous-brown, the fringing to the feathers about Tawny-Olive or greyer. Face light, with moderately developed buffy white superciliary streak. Below, with the forethroat and midventer buffy white; breast and sides Warm Buff, moderately streaked with light brown. Tail boldly marked laterally with white: outermost rectrix with entire outer vane and deep terminal light wedge to inner white; penultimate rectrix with terminal half of outer vane and deep light wedge on inner white; innermost pair broadly edged olivaceous-brown. Primaries 2 and 3 longest, with pp 1 and 4 shorter, and p 5 much shorter than first 4. Primaries 2-4 emarginate; indicated on p 5. Hindclaw length <12,5 mm. Base of lower mandible yellow. Male larger than female, but less marked in northeastern differentiates. See Fig. 10.

Range of species:

Fig. 11. Widely distributed over much of the Southern African Subregion, but sparse in the Karoo regions of the Cape and arid west, extending north in the west to Angola and Zaïre south of the Lower Guinea Forest, and through East Africa to Ethiopia and Eritrea, the upper Nile basin and Darfur in the Sudan. Isolates are present in Cameroon and adjacent Chad, and in the southeastern highlands of the Arabian Peninsula from Asir-Tihama, south to Yemen. It is apparently absent over much of the Horn of Africa.

Habitat:

Favours short open grassland with limited tree cover, pasturage and meadows, fallow cultivated land, grassland of floodplains and to a limited extent on the edges of golf courses. Gregarious on passage and on the wintering grounds and attracted to recently burnt veld. In the southern African context, one of the more strongly migratory of the genus, most upland breeding grounds being vacated during the cold dry season of the austral winter.

Status:

Highly polytypic with thirteen species confined to the Afrotropics. Derived from the same ancestral radiation as the contemporary *Anthus richardi*, and other allospecies of the *A. novaeseelandiae* superspecies.

References: Clancey (1954, 1977, 1986b, c).

Subspecies:

(a) ***Anthus cinnamomeus rufuloides*** Roberts
Anthus richardi rufuloides Roberts, *Ostrich* 7, 1936: 111: Grahamstown, Albany, eastern Cape.
Anthus richardi transkeiensis Vincent, *Bull. Brit. Orn. Club* 69, 1948: 17: Qumbu, Transkei.

Dorsal surface with the feathers fringed moderate Tawny-Olive. Below buffy white, the breast Warm Buff, streaked with dark brown.

Mean wing length of males is 90,5 mm (sd 1,2; 89-93; n=16).

Mean wing length of females is 85,0 mm (sd 1,6; 83-87,5; n=15).

Range:

Cape Province south of the Orange River to Griqualand West, the Orange Free State, the lowlands of Lesotho, Transkei, Natal and Zululand, Swaziland and the Transvaal. Migratory, wintering north to northern Botswana, western and southern Zimbabwe, Mozambique and southern Zambia, and, perhaps, Malawi (May-September).

(b) ***Anthus cinnamomeus bocagii*** Nicholson
Anthus bocagii Nicholson, *Ibis* 1884: 469: Humbe, southern Cunene, Angola. Proposed as a nom. nov for *Anthus pallescens* Bocage, 1874, not *Anthus pallescens* Vigors & Horsfield, 1826 (*vide Trans. Linn. Soc. London* 15(1): 229).

Similar to *rufuloides*, but rather paler and duller over the dorsal surfaces, the feathers fringed Buffy Olive; rump greyer. Below, with ground to breast paler, the dark spotting both lighter and sparser. Similar in size to *rufuloides*.

Mean wing length of males is 89,6 mm (sd 1,6; 86,5-91; n=14).

Mean wing length of females is 83,1 mm (sd 2,4; 80-87; n=14).

Range:

Western and southwestern Angola, Namibia, Botswana, the northern Cape north of Griqualand West, the dry western Orange Free State, western Transvaal and perhaps western Zimbabwe. Migratory as the last subspecies, many reaching the plain of Mozambique in the dry winter months.

(c) ***Anthus cinnamomeus grotei*** Niethammer
Anthus richardi grotei Niethammer, *Journ. f Ornith.* 98, 1957: 449: Onguma, east of Etosha Pan, northern Namibia.

Upperparts paler, the feathers of the hindneck, mantle and scapulars light greyish Drab to off-white compared with *bocagii*. Ventrally much whiter, with the ground to the breast pale vinaceous-buff and the brown spotting still more diffuse. Ranging a little smaller than *bocagii*.

Mean wing length of males is 87,8 mm (sd 1,8; 85-90; n=6).

Mean wing length of females is 81,9 mm (sd 2,9; 79-86,5; n=6).

Range:

Breeds in association with the saline substrate of salt pans at Etosha in the north of Namibia, east to Makgadikgadi and Lake Dow in Botswana. In the nonbreeding season recorded from western Zimbabwe and western Zambia.

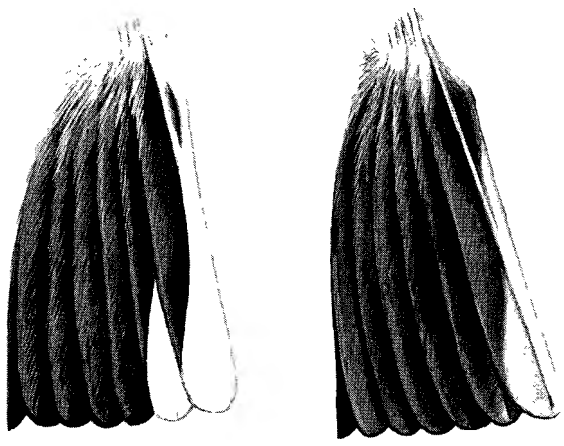


FIG. 10 – The ventral aspect of tails (right half) showing the marked difference in the lateral pattern between Grassveld *A. cinnamomeus* (left) and Mountain *A. hoeschi* (right) Pipits.

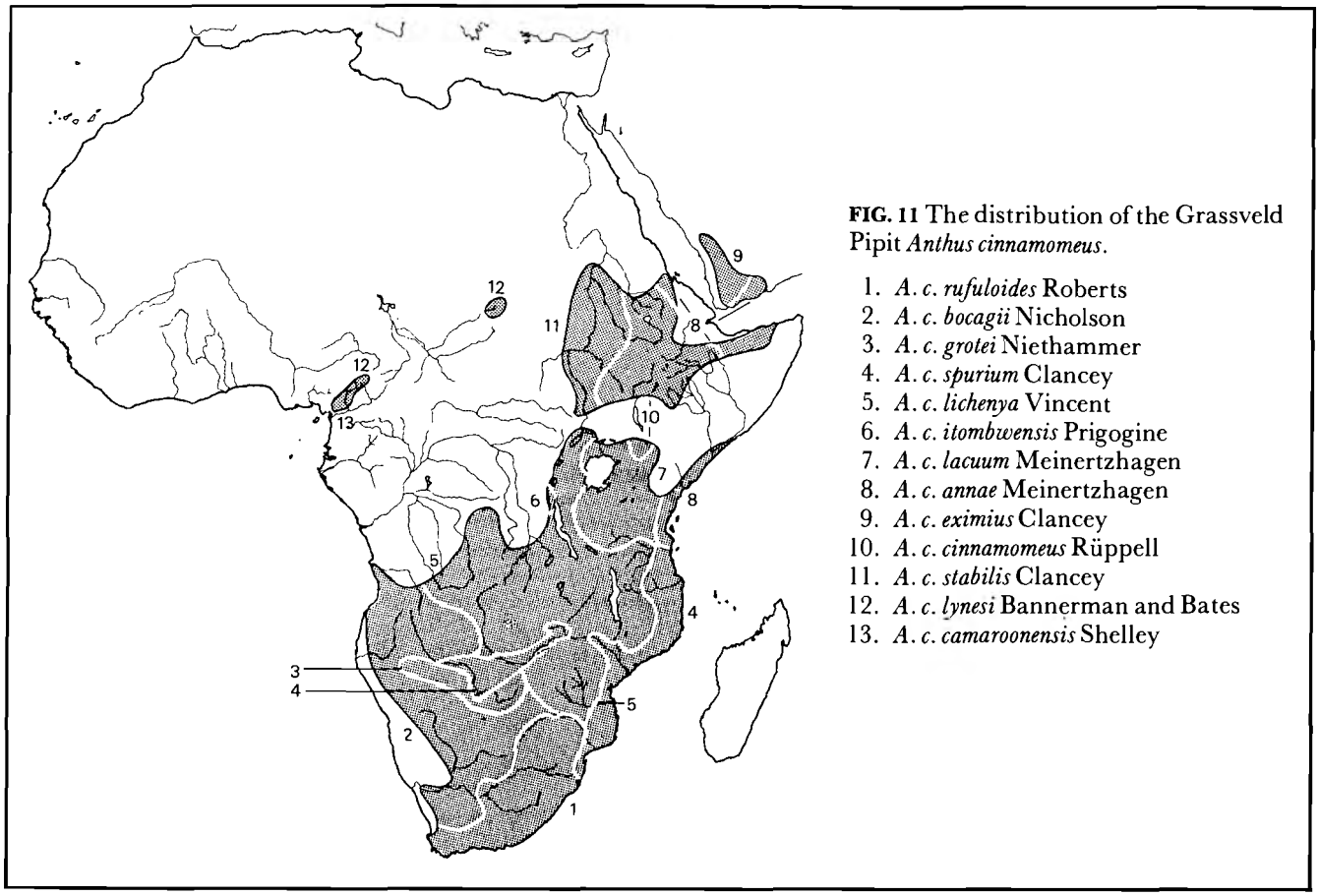


FIG. 11 The distribution of the Grassveld Pipit *Anthus cinnamomeus*.

1. *A. c. rufuloides* Roberts
2. *A. c. bocagii* Nicholson
3. *A. c. grotei* Niethammer
4. *A. c. spurium* Clancey
5. *A. c. lichenya* Vincent
6. *A. c. itombwensis* Prigogine
7. *A. c. lacuum* Meinertzhagen
8. *A. c. annae* Meinertzhagen
9. *A. c. eximius* Clancey
10. *A. c. cinnamomeus* Rüppell
11. *A. c. stabilis* Clancey
12. *A. c. lynesi* Bannerman and Bates
13. *A. c. camaroonensis* Shelley

(d) ***Anthus cinnamomeus spurium*** Clancey
Anthus richardi spurium Clancey, *Ann. Natal Mus.* 12, 1951: 144: Mzimbiti = Dondo, Sofala, southern Mozambique.

Compared with the previous races, the dorsal feathers have blacker centres and more vinaceous grey fringing. Ventrally, with the ground to the breast buffier but vinaceous tinged, the breast spotting coarser and blacker. Wings and tail darker. Size ranging smaller than immediate races.

Mean wing length of males is 87,1 mm (sd 2,2; 83,5-90; n=14).

Mean wing length of females is 81,7 mm (sd 1,1; 80-83; n=10).

Range:

Coast of Mozambique, southern Malawi in the lower Shiré River valley and southeastern Tanzania north to the Rufiji River delta. The population in the Okavango River drainage on the Angola/Namibia border, east to northern Botswana, the Caprivi Strip and adjacent Zambezi River is currently accommodated in *spurium*.

Remarks:

A subspecies closely associated with large alluvial floodplains from southern Mozambique to Tanzania. Freshly moulted material from the Okavango may be separable from the littoral populations which, on the worn material available, they cannot be convincingly separated.

(e) ***Anthus cinnamomeus lichenya*** Vincent
Anthus richardi lichenya Vincent, *Bull. Brit. Orn. Club* 53, 1933: 131: Mlanje Mtn, southern Malawi, at 1 980 m asl.
Anthus richardi katangae Chapin, *Rev. Zool. Bot. Africaines* 29, 1937: 339: Lake Musole, Shaba, southeastern Zaïre.

Similar to *rufuloides* but rather redder over the dorsum, the feathers fringed deep Buckthorn Brown. More clearly differentiated below in having the entire breast and upper midventer brighter and redder buff. In some 75% of cases the white on the penultimate rectrix is greatly reduced or entirely absent.

Mean wing length of males is 91,4 mm (sd 1,6; 89-93,5; n=10).

Mean wing length of females is 86,8 mm (sd 2,4; 83-90; n=10).

Range:

Western Uganda, the lowlands of Rwanda and Burundi, western Tanzania towards the Rift, Shaba, Zaïre, northeastern Angola, Zambia, Malawi, western northern Mozambique, and south of the Zambezi over the plateau of Zimbabwe and adjacent highlands of Mozambique. A trend towards this redder form is seen in northern Transvaal specimens.

(f) ***Anthus cinnamomeus itombwensis*** Prigogine
Anthus cinnamomeus itombwensis Prigogine, *Gerfaut* 71, 1981 (=1982): 565: Kilumba, Itombwe Mtns, southeastern Zaïre.

Differs sharply from *lichenya* in being darker and more densely streaked over the upperparts, the feathers fringed saturated Wood Brown. Below, with the ground duller and more pinkish vinaceous, the breast streaking denser and blacker, and more extensively distributed laterally. Tail pattern modified as in *lichenya*.

Mean wing length of males is 93,4 mm (sd 2,0; 90-98; n=31).

Mean wing length of females is 88,1 mm (sd 1,4; 86-91; n=30).

Range:

Presently known as breeding on the Itombwe Mtns west

of Lake Tanganyika in southeastern Zaïre. Perhaps present in high mountains to the east of Lake Tanganyika.

(g) ***Anthus cinnamomeus lacuum*** Meinertzhagen
Anthus richardi lacuum Meinertzhagen, *Bull. Brit. Orn. Club* 41, 1920:22: Lake Naivasha, Kenya.

Compares closely with *rufuloides* of southern Africa, but slightly paler and more vinaceous, often having a mealy aspect. Ventrally similar, often more vinaceous and less buffy, the breast spotting on the whole finer, and in many sparser. Size smaller than in *rufuloides*.

Mean wing length of males is 87,3 mm (sd 2,0; 84-90; n=11).

Mean wing length of females is 84,4 mm (sd 1,5; 82,5-87; n=11).

Range:

Plains of the interior of Kenya, west to the Lake Victoria basin of Uganda, and interior northern and central Tanzania.

(h) ***Anthus cinnamomeus annae*** Meinertzhagen
Anthus richardi annae Meinertzhagen, *Ibis* ser. 11, 1, 1921: 656: Megago, northern Somalia.

Paler than the contiguous *lacuum*, the centres of the dorsal feathers browner, and the fringes more greyish vinaceous. Much whiter below, marked over the forethroat and mid- and lower venter. Ground to breast lighter and more pinkish, and spotting browner and more diffuse. A small subspecies with little difference in size between the sexes.

Mean wing length of males is 85,7 mm (sd 1,8; 82,5-87,5; n=6).

Mean wing length of females is 83,7 mm (sd 2,5; 81-88; n=8).

Range:

Red Sea coast of Ethiopia from Asmara to the Danakil region, coastal southern Yemen, Somalia in the north and southwest, eastern Kenya and northeastern Tanzania. Generally rather sparse and local.

(i) ***Anthus cinnamomeus eximius*** Clancey
Anthus cinnamomeus eximius Clancey, *Gerfaut* 76, 1986: 201: San'a, Yemen.

Slightly darker above than *annae*, but differs in having the ground to the breast darker buff, this colour more extended caudad, and spotting of breast carried further down and both heavier and more streaked in form. Similar in size to *annae*.

Mean wing length of males is 86,2 mm (sd 2,4; 82-88,5; n=7).

Wing length of one female is 87 mm.

Range:

The mountains of the southeastern parts of the Arabian Peninsula from Asir-Tihama, Saudi Arabia, south to Yemen.

(j) ***Anthus cinnamomeus cinnamomeus*** Rüppell
Anthus cinnamomeus Rüppell, *Neue Wirbelth.*, Vög., 1840: 103: Simen, Ethiopia.

Differs from adjacent populations of the northeastern Afrotropics in being dark umber brown above, the feathers edged with Buckthorn Brown. Below, buffy white, with the breast and sides Warm Buff, the breast marked with elongate spots of brownish black. Size large.

Mean wing length of males is 93,2 mm (sd 3,0; 90-99; n=10).

Mean wing length of females is 89,3 mm (sd 1,1; 87,5-91; n=10).

Mean tail length of females is 59,8 mm (57,5-63).

Range:

The high plateaux and mountains of Ethiopia, and the central highlands of Kenya (lower Mt Kenya).

(k) ***Anthus cinnamomeus stabilis*** Clancey
Anthus cinnamomeus stabilis Clancey, *Gerfaut* 76, 1986: 198: Renk, White Nile, Sudan.

Compared with nominate *cinnamomeus* with the dorsal streaking darker and heavier, the fringing more vinaceous (about Isabella Color). Below more dusky, vinaceous rather than buffy, with the lateral throat and breast streaking much heavier, blacker, more extended caudad and somewhat dappled. Size similar to *cinnamomeus*, but female with longer tail.

Mean wing length of males is 92,5 mm (sd 1,8; 91-94,5; n=4).

Mean wing length of females is mm (sd 1,1; 88,5-91; n=8).

Tail length in females 66,8 mm (63,5-70).

Range:

The Sudd region and White Nile basin of southern Sudan.

(l) ***Anthus cinnamomeus lynesi*** Bannerman and Bates)
Anthus rufulus lynesi Bannerman & Bates, *Ibis* ser. 12, 2, 1926: 802: east of Bamenda, Cameroon, at 1 525 m asl.

Differs from *stabilis* in being less dark and broadly streaked over the dorsal surfaces, the feather edges about Tawny-Olive. Differs more cogently below, being saturated ochraceous-orange (near Clay Color), with the spotting of the lateral forethroat and breast still heavier and blacker. Size larger than *stabilis*.

Mean wing length of males is 98,5 mm (sd 2,0; 95-100,5; n=6).

Mean wing length of females is 92,5 mm (90-95; n=3).

Range:

Extends locally from eastern Nigeria from the Obudu Grass and Mambila Plateaux, Cameroon from Bamenda and the Banso Highlands, to Chad (Fort Lamy) and the Darfur region of western Sudan.

(m) ***Anthus cinnamomeus camaroonensis*** Shelley
A. rufulus camaroonensis Shelley, Birds of Africa 2, 1900: 321: Mt Cameroon, Cameroon, at 3 033 m asl.
Anthus camerunensis Ogilvie-Grant, *Bull. Brit. Orn. Club* 25, 1909: 12: Cameroon Mtn, Cameroon.

Compared with nominate *cinnamomeus* darker and colder above, the feather centres blackish olive-brown, the light fringing Drab. Dark areas of face blacker. Below, with breast and sides duller buffy, with heavier, blacker breast-streaking. The light panels on outer two pairs of rectrices pinkish or buffish, less starkly white. Size about the same. Differs from the contiguous *lynesi* in lacking the ochraceous-orange colouration to the underside and in being smaller.

Mean wing length of males is 94,3 mm (sd 1,3; 92,5-96; n=5).

Mean wing length of females is 91,4 mm (sd 1,8; 89-94; n=9).

Range:

Grasslands of Mt Cameroon and the Manenguba Mtns, Cameroon. Also taken at Sabga, Bamenda Division.

ANTHUS HOESCHI Stresemann 1938

Mountain Pipit

Anthus hoeschi Stresemann, *Ornith. Monatsber.* 46, 1938: 151: Erongo Mtns, Damaraland, Namibia.
Anthus richardi lwenarum White, *Bull. Brit. Orn. Club* 67, 1946: 9: Balovale, North Western Province, Zambia.
Anthus richardi editus Vincent, *Ann. Natal Mus.* 12, 1951: 135: Sanqubetu River valley, Lesotho, at 29° 17'S, 29° 21'E., at 2 438 m asl.

Both White (1946) and Vincent (1951) overlooked the diagnostic tail pattern character of this species. Vincent (1951) drew attention to the heavier dorsal streaking and duller venter of the form. White's (1951) description of *lwenarum* can only be applied to *hoeschi* on the basis of his original paratypical material in the British Museum (Nat. Hist.), Tring, which does not correspond with the differential diagnosis.

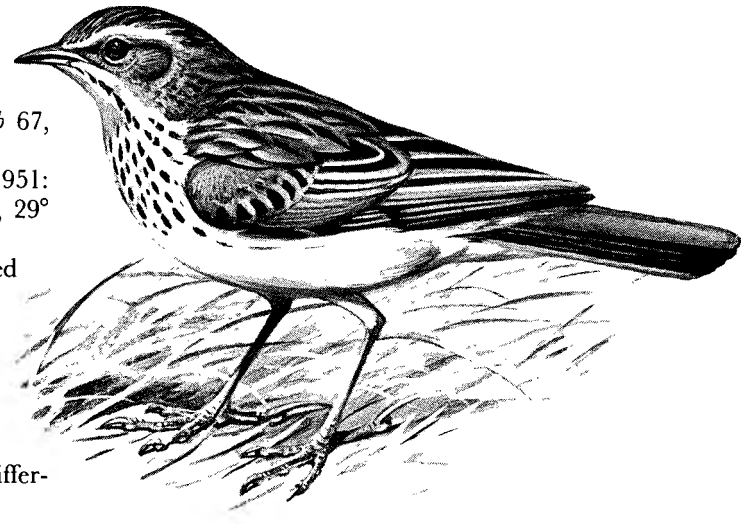


FIG. 12 – Mountain Pipit *Anthus hoeschi*, showing the heavy dorsal striation, lack of white in tail and larger size which separate this species from *A. cinnamomeus*.

Diagnostic characters:

Relatively large, length *ca* 18,5 cm (males). Dorsally similar to *A. cinnamomeus*, but dark shaft-streaking broader, this especially marked over the pileum. Superciliary stripe buffish. Venter, generally more dusky and vinaceous tinged, with the breast-streaking heavier and blacker. No white in tail; outermost rectrix with outer vane and deep terminal wedge on the inner dusky vinaceous-fawn; penultimate rectrix plain brownish black, but in some with pale terminal smudge. Wing formula as in *A. cinnamomeus*, with primaries 1 and 4 slightly shorter than 2 and 3, and p 5 much shorter than pp 1-4. Primaries 2-5 emarginate. Hindclaw length <13,5 mm. Base of lower mandible flesh-coloured (yellow in *A. cinnamomeus*). Male larger than female. See Fig. 12.

Juvenile much blacker dorsally and over wings and tail than in the young of *A. cinnamomeus* with the breast-streaking heavier and blacker. Tail pattern as in adults.

Mean wing length of males is 95,1 mm (sd 1,2; 94-97,5; n=9).

Mean wing length of females is 89,7 mm (sd 1,3; 88,5-92; n=6).

Range of species:

Fig. 13. Breeds at high elevations in the Drakensberg Mountains from the northeastern Cape at Naudesnek Pass and Ben Macdhui to the Quathlamba ranges of Lesotho and the Transkei and Natal Drakensberg between 1 800 and 2 700 m asl Arrives on the breeding grounds at the end of October, breeding November-February.

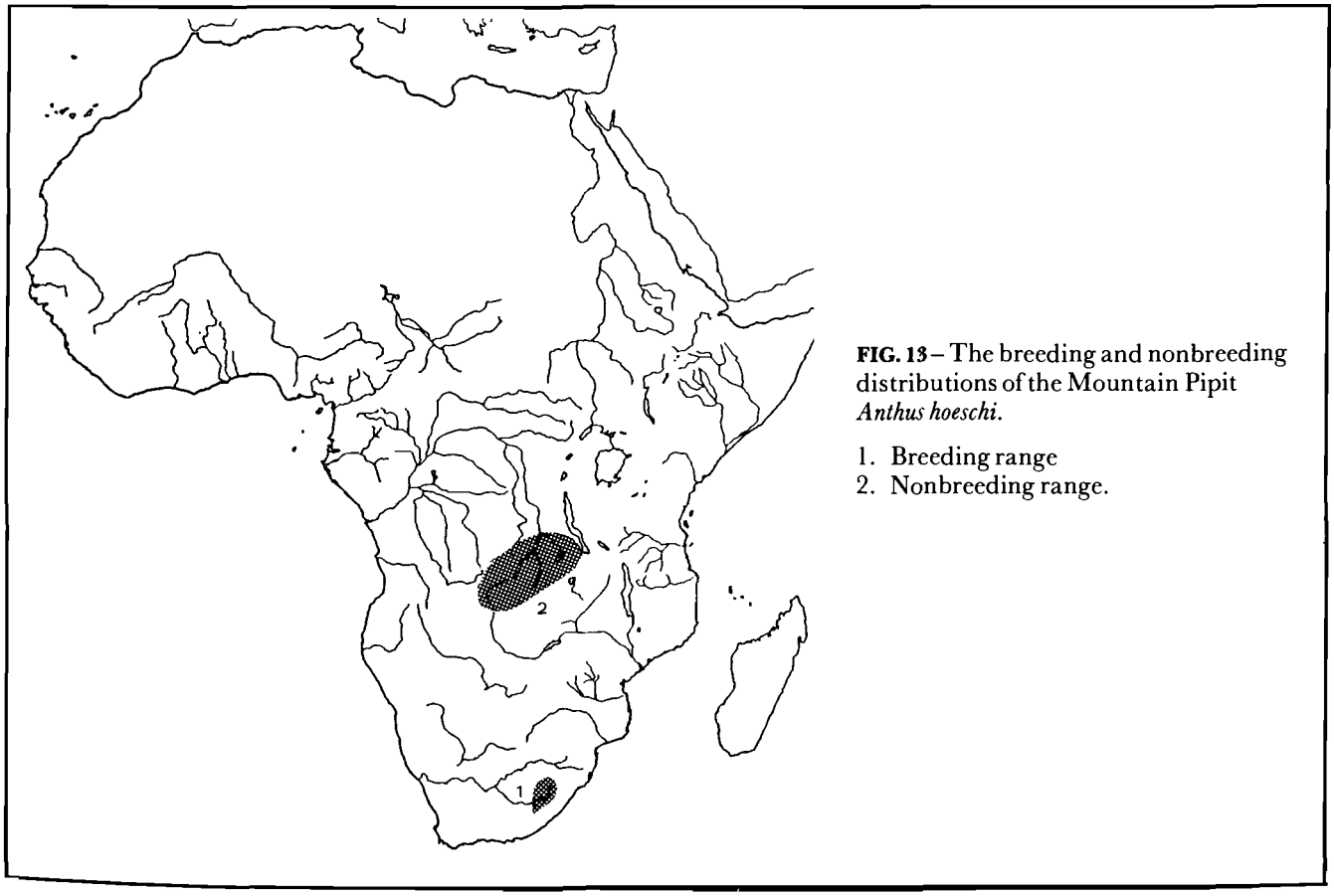


FIG. 13 – The breeding and nonbreeding distributions of the Mountain Pipit *Anthus hoeschi*.

1. Breeding range
2. Nonbreeding range.

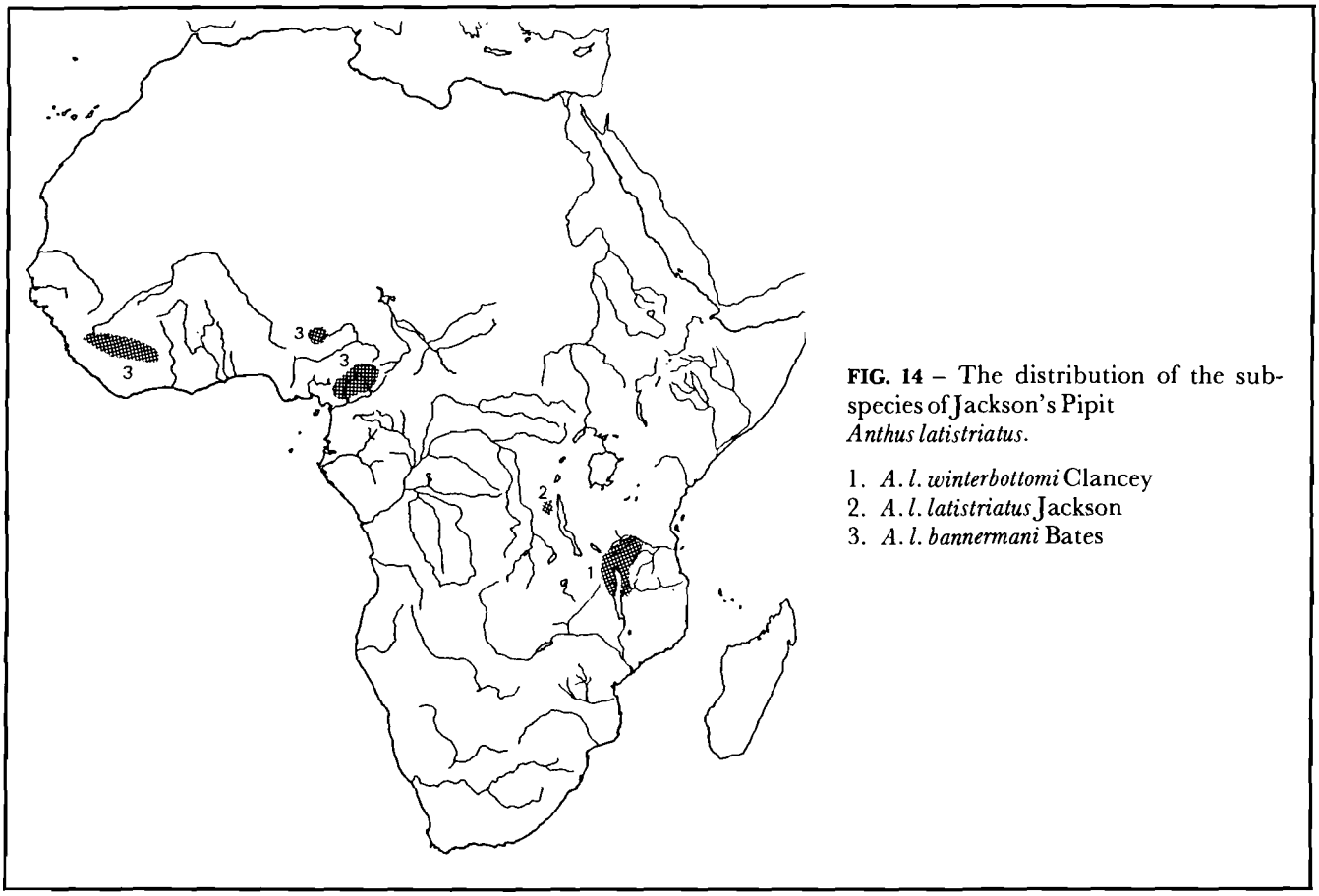


FIG. 14 – The distribution of the subspecies of Jackson's Pipit *Anthus latistriatus*.

1. *A. l. winterbottomi* Clancey
2. *A. l. latistriatus* Jackson
3. *A. l. bannermani* Bates

Spends the nonbreeding season along the Zambezi/Zaïre watershed from northeastern Angola and southern Shaba, Zaïre, to adjacent parts of northern Zambia. Northbound migrants have been collected in the Erongo Mtns and at Okahandja, in Namibia, at Kimberley in the northern Cape, and southbound ones at Francistown in northeastern Botswana in the second half of October.

Habitat:

On breeding grounds, inhabits high elevation short grasslands and the alpine summits, normally above the altitude reached by the sympatric population of the Grassveld Pipit *A. c. rufuloides* and higher than the altitudinal limits attained by the local population of the Long-billed Pipit *A. similis primarius*. A single migrant in fresh dress encountered at Kimberley, in the northern Cape, behaved more like a *Mirafra* lark than a pipit, threading its way through the grass tufts and showing a reluctance to fly.

Status:

Monotypic. Most closely allied to Jackson's Pipit *A. latistriatus*, both derived from the same ancestral lineage as the contemporary *A. cinnamomeus*, *A. richardi* and *A. rufulus*.

References: Clancey (1978, 1984a, 1985b).

ANTHUS LATISTRIATUS Jackson 1899

Jackson's Pipit

Diagnostic characters:

Moderately large; length *ca* 17 cm (males). Dorsal surface vinaceous brownish black, with slightly lighter fringing to feathers. Superciliary streak buffish white. Ventrally, with forethroat buffish white; rest of venter vinaceous- or ochraceous-buff, the lateral throat, breast, sides and flanks broadly spotted and streaked with dark brown to blackish, the pale medioventral plane relatively constricted. Tail dark, with light vinaceous-buff to the outer vane and terminal wedge of inner; penultimate rectrix normally entirely brownish black, but occasionally with vestigial light terminal patch. Wing formula as in *A. cinnamomeus* subspp., pp 1 and 4 slightly shorter than pp 2 and 3; p 5 much shorter. Primaries 2-5 emarginate. Hind-claw shorter than in *A. cinnamomeus* races and is very short compared with almost equally dark *A. c. itombwensis* – <9 versus >11 mm. in *cinnamomeus*. Compared with *A. similis* subspp. tail and culmen much shorter in length. Colour of base of mandible unrecorded, probably flesh-coloured.

Range of species:

Fig. 14. Mountain summits of West Africa from Guinea, Sierra Leone, Liberia and western districts of the Ivory Coast, east disruptedly to eastern Nigeria and Cameroon. South of this reappears in southeastern Zaïre in eastern Shaba and perhaps Kivu, northern Malawi, northeastern Zambia, southern Tanzania and the high interior of northern Mozmique. Postbreeding movement occurs in at least the southeastern elements, when birds range to lower altitudes often at some distance from the breeding grounds. Data on this aspect of the annual cycle are not available from West Africa.

Habitat:

Recorded in alpine grassland and open rocky (grassed) terrain in mountains above the treeline. In the case of the nominate subspecies, taken on recently burnt grassland on its wintering grounds.

Status:

Polytypic. Three forms are here treated as part of a species *A. latistriatus*. Close allied to the Mountain Pipit *Anthus hoeschi* of the Drakensberg massif of southeastern

Africa, deriving from an early Eurasian progenitor of the *A. richardi* lineage.

References: Clancey (1978, 1984b, 1985a, 1986b, 1987b), Dowsett and Dowsett-Lemaire (1980) and Prigogine (1982).

Subspecies:

(a) ***Anthus latistriatus winterbottomi*** Clancey
Anthus latistriatus winterbottomi Clancey, *Ostrich* 56, 1985: 165: Mafinga Mtns, 32 km south of Fort Hill, Zambia/Malawi frontier.

Less saturated and dark above than nominate *latistriatus*, the light and dark feathers surfaces less contrasted. Below, more ochraceous, not so pinkish as the nominate race, and with the blackish spotting to the breast and lateral streaking not so broad and dark. Smaller in size than the nominate race.

Mean wing length of males is 90,7 mm (sd 1,7; 89-93; n=4).

Wing length of females is *ca* 84-88 mm.

Range:

The summits of the Mafinga and Makutu Mtns in Zambia, the Nyika Plateau and Misuku Hills, Malawi, and the high mountains north of Lake Malawi in Tanzania, southeast to Unangu, northern Mozambique. Ranges to lower altitudes in the nonbreeding season.

(b) ***Anthus latistriatus latistriatus*** Jackson
Anthus latistriatus Jackson, *Ibis* ser. 7, 5, 1899: 628: Kavirondo, southwestern Kenya.

Dorsum saturated Clove Brown, the feathers edged vinaceous-buff. Ventral surfaces saturated vinaceous-buff, the breast densely spotted with black, and sides and flanks broadly streaked with blackish brown. Size large.

Wing lengths of 2 males is 94 and 95 mm.

Wing length of 1 female is 89 mm.

Range:

Recorded from ostensible breeding grounds in the Itombwe Mtns, west of Lake Tanganyika, southeastern Zaïre, and taken on the nonbreeding grounds in Uganda (Lugaga, in Ankole) and southwestern Kenya (Kavirondo).

Remarks:

The type-specimen of *A. latistriatus* in the collection of the British Museum (Nat. Hist.) was unique for a long time. Initially accepted as being of a recognisable species of pipit, it was later regarded as a juvenile of *A. similis* (Sclater 1930) and then as a melanistic variant of *A. cinnamomeus* (White 1960). Clancey (1984b) re-examined the specimen and recognized it as representing a full species.

(c) ***Anthus latistriatus bannermani*** Bates
Anthus richardi bannermani Bates, *Bull. Brit. Orn. Club* 51, 1930: 48: Birwa Peak, Kono district, Sierra Leone.
Anthus similis chapini Grote, *Ornith. Monatsber.* 45, 1937: 205: Fangu, Bamenda, Cameroon.
Anthus similis josensis Grant and Mackworth-Praed, *Bull. Brit. Orn. Club* 78, 1958: 18: Jos (Plateau), central Nigeria.

Similar to the nominate subspecies in colouration, but smaller in size.

Mean wing length of males is 88,2 mm (sd 2,5; 85,5-92,5; n=12).

Mean wing length of females is 82,8 mm (sd 2,2; 81-84; n=8).

Range:

The mountain ranges of Guinea, Sierra Leone, Liberia and the Ivory Coast, extending disruptedly east to Nigeria (Jos Plateau) and Cameroon (Manenguba Mtns and Bamenda).

Remarks:

As the western montane isolates of *A. cinnamomeus* in Cameroon are longer winged than *bannermani*, the former seemingly inhabits higher elevations when sympatrically associated with *latistriatus*, and is more subject to post-breeding movements. *A. s. josensis* of 1958 was based on a single ragged female skin and compared with the desertic *A. s. asbenaicus*, described from Aïr, Niger, a subspecies not represented in the British Museum collection at Tring.

ANTHUS LINEIVENTRIS Sundevall 1850

Striped Pipit

Diagnostic characters:

Relatively large. Length *ca* 18,5 cm (males). Dorsal surface dull olivaceous brown, the feathers fringed with citrine drab, imparting a boldly striated effect. Face buffy white, streaked with brown, the supercilium yellowish white. Ventrally off-white, the breast with the ground stone-buff, sharply but narrowly marked with greyish brown shaft-streaks, these tending to die out over the flanks. Wings coloured much as upperparts, but coverts fringed with yellowish olive; remiges with the outer vanes edged buffy olive. Underwing coverts and axillaries tipped with yellow. Tail dark, quills edged yellowish olive; outermost with white outer vane and deep white wedge to inner, and with apical white wedge-shaped panels on the penultimate and antepenultimate pairs. Wing formula: primaries 1 and 4 slightly shorter than pp 2 and 3, p 5 shorter than first 4 and pp 2-4 emarginate. Hind-claw length <10 mm. Sexes sharply dissimilar in size, with the male the larger.

Range of species:

Fig. 15. Locally distributed in broken and hill country from the extreme east of the Cape and the Transkei coast to Natal and Zululand, Swaziland, southern Mozambique in the Lebombo Mtns, the Transvaal and southeastern Botswana, north to the plateau of Zimbabwe and adjacent Mozambique. North of the Zambezi found as an isolate in western Angola, and to the east present in southeastern Zaïre, locally over much of Zambia, Malawi, western northern Mozambique and southern and eastern Tanzania to the hill ranges of southeastern Kenya. Some populations, especially in the south, are subject to marked migratory movements.

Habitat:

Lightly wooded savanna, favouring *Brachystegia* formations over much of its range, but also bushveld in hilly country with rock faces, outcrop rock and boulders. Often near streams. Usually solitary or in pairs when breeding, but in small parties on the wintering grounds. Usually under or among trees or in ecotone situations.

Status:

Polytypic with four races. Phylogenetic background uncertain. Bears a similarity to the grassland species *A. melindae*, but not particularly closely allied, the similarity perhaps due to convergence, but habitat differences belie this.

Reference: Clancey (1984c).

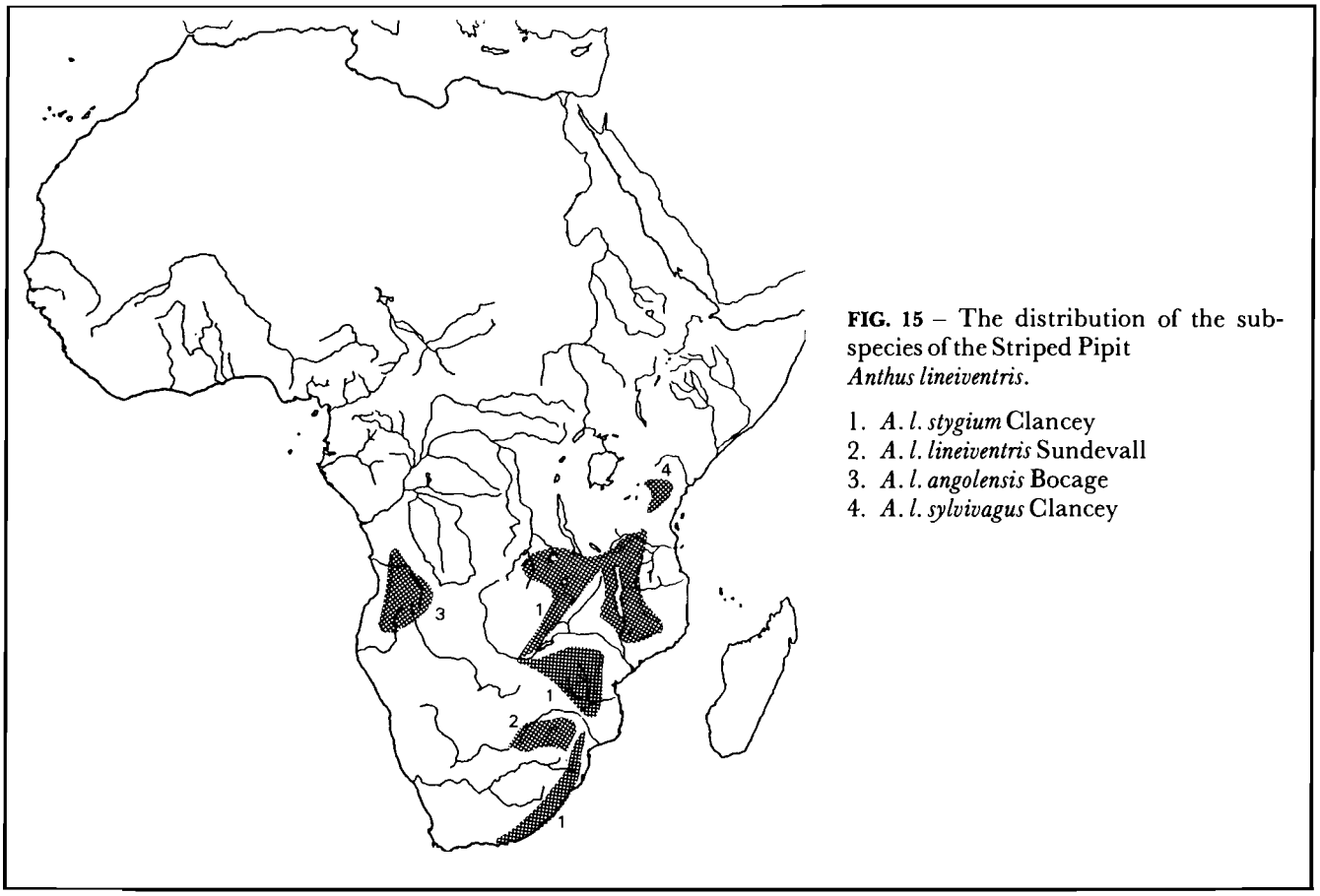


FIG. 15 – The distribution of the subspecies of the Striped Pipit *Anthus lineiventris*.

1. *A. l. stygium* Clancey
2. *A. l. lineiventris* Sundevall
3. *A. l. angolensis* Bocage
4. *A. l. sylvivagus* Clancey

Subspecies:

(a) ***Anthus lineiventris stygium*** Clancey
Anthus lineiventris stygium Clancey, *Bonner zool. Beitr.* 3 (1/2), 1952: 18: Umgeni River valley, near Pietermaritzburg, Natal.

Dorsum dull olive-brown, boldly streaked with citrine-drab. Below off-white, the breast stone-buff, the breast, sides and flanks marked with narrow greyish brown shaft-streaks, these narrowing and becoming vestigial over the flanks.

Mean wing length of males is 88,0 mm (sd 2,3; 86-92,5; n=12).

Mean wing length of females is 83,6 mm (sd 0,9; 82-85; n=8).

Length of white wedge on inner vane of outermost rectrix in males is 27-38 mm and in females 26,5-36 mm.

Range:

The extreme eastern parts of the Cape and coastal Transkei, Natal and Zululand, eastern Swaziland and Mozambique in the Lebombo Mtns, extending to the plateau of Zimbabwe and adjacent Mozambique. North of the Zambezi to Zambia, southeastern Zaïre, Malawi, northern Mozambique and southern montane Tanzania.

(b) ***Anthus lineiventris lineiventris*** Sundevall
Anthus lineiventris Sundevall, *Oefv. K. Sv. Vet.-Akad. Förhandl.* 7, 1850: 100: Caffraria superiore, *ca* Limpopo flumen = Dwarsberg, Marico district, western Transvaal (*vide* Gyldenstolpe, *Ibis*, 1934: 291).

Similar above to *stygium*, differing in being more strongly buffish below, with the breast and lateral streaking heavier and blacker. Yellow edging to wing feathers greener. Males not ranging quite so large as in southern elements of *stygium*.

Mean wing length of males is 87,1 mm (sd 1,5; 85-89,5; n=10).

Mean wing length of females is 84,4 mm (sd 0,6; 83,5-85; n=8).

Range:

Southeastern Botswana and the plateau of the Transvaal and adjacent western Swaziland. Occurs seasonally as a nonbreeding visitor (May-September) to the southwest and eastern highlands of Zimbabwe.

(c) ***Anthus lineiventris angolensis*** Bocage
Anthus angolensis Bocage, *Jorn. Acad. Sci. Lisboa* 8, 1870: 341: Pungo Andongo, Malanje, Angola.

Darker above than nominate *lineiventris*, the light streaking duller olive-citrine. Ventrally, like *stygium*, but breast-streaking much heavier and blacker, but with lateral striae in turn finer and obsolete on the flanks. Yellow in wings greenish as in nominate race, and with a larger white wedge on the inner vane of the outermost rectrix (*ca* 40 mm length, versus 27-38 mm in nominate race). Size ranging larger.

Wing length in males is 84-94 mm.

Range:

Western Angola from Huambo and Malanje, south to the escarpment of Huila, but precise limits and status uncertain. Clearly uncommon.

(d) ***Anthus lineiventris sylvivagus*** Clancey
Anthus lineiventris sylvivagus Clancey, *Durban Mus. Novit.* 13, 1984: 232: Mombo, Soni Gorge, West Usambara Mtns, northeastern Tanzania.

Dorsally like *angolensis* but greener on the back. Ventrally similar but lateral and flank streaking much heavier and like nominate race in this regard. In tail, white apical panel to inner vane of outer rectrix still larger: males 41-

43 mm, females 37-42 mm. Size as in nominate *lineiventris* and *stygium*.

Mean wing length of males is 88,0 mm (sd 1,3; 86-90; n=6).

Mean wing length of females is 82,7 mm (sd 1,2; 81-84; n=5).

Range:

The Chyulu and Teita Hills of southeastern Kenya to northeastern Tanzania from the Mbulu Escarpment, Mt Kilimanjaro and Mt Lossogonoi, south of Moshi, south to the Paré and Usambara Ranges.

ANTHUS CRENATUS Finsch and Hartlaub 1870

Yellowtufted Pipit

(South African Rock Pipit)

Anthus crenatus Finsch and Hartlaub, *Vög. Ost-Afr.* 1870: 275: near Cape Town, southwestern Cape.

Diagnostic characters:

Size relatively large; length *ca* 18 cm (males). Upperparts medium olive-brown, with fine indistinct dark shaft-streaking. Face relatively light brownish with distinct buff superciliary streak and malar stripe. Below warm buff, the breast with a rusty buff ground, indistinctly marked with nebulous streaks of olive-brown; streaking carried down over the sides and flanks where fading out. Wings olive-brown, the lesser coverts and bastard wing fringed with mimosa yellow, the remaining coverts and remiges edged with buff or olive-yellow. Axillaries and underwing coverts prominently tipped mimosa yellow. Tail dark brown, the outer vanes of the remiges edged yellowish, the outermost primary with the outer vane and apex of the inner off-white. Wing formula: primaries 1-4 longest, p 2 and p 3 longer than pp 1 and 4; p 5 much shorter than first 4. Primaries 2-4 emarginate; vestigial on p 5. Hindclaw length <10,5 mm. Base of bill yellowish. Female only slightly smaller than male. See Fig. 16.

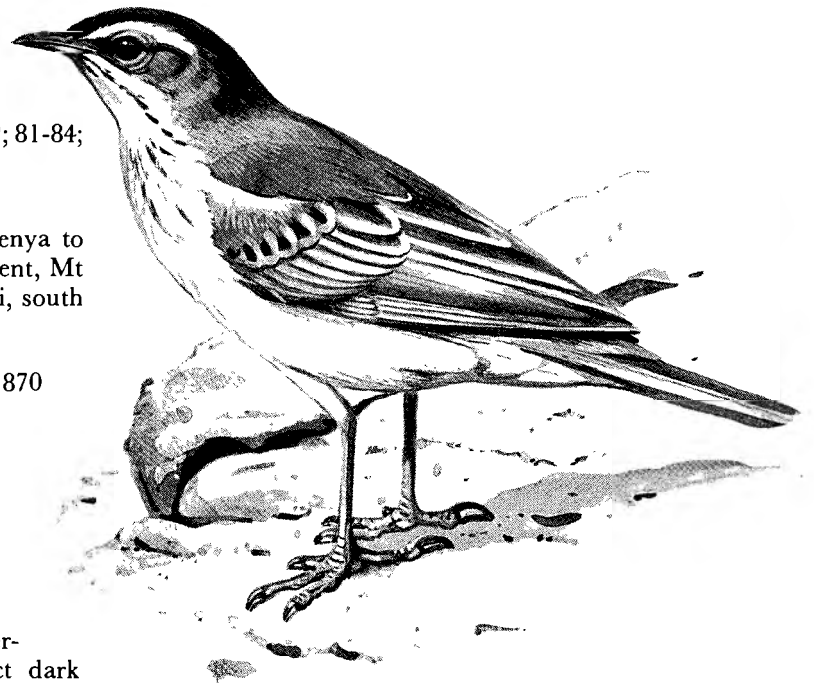


FIG. 16 – Yellowtufted Pipit *Anthus crenatus*. The nebulous breast streaking and mimosa yellow bend (wrist) to the wing and the habit of standing motionless, pointing the bill skywards, are characteristic.

Mean wing length of males is 89,5 mm (sd 1,9; 85,5-91; n=9).

Mean wing length of females is 85,5 mm (sd 2,8; 82,5-89,5; n=6).

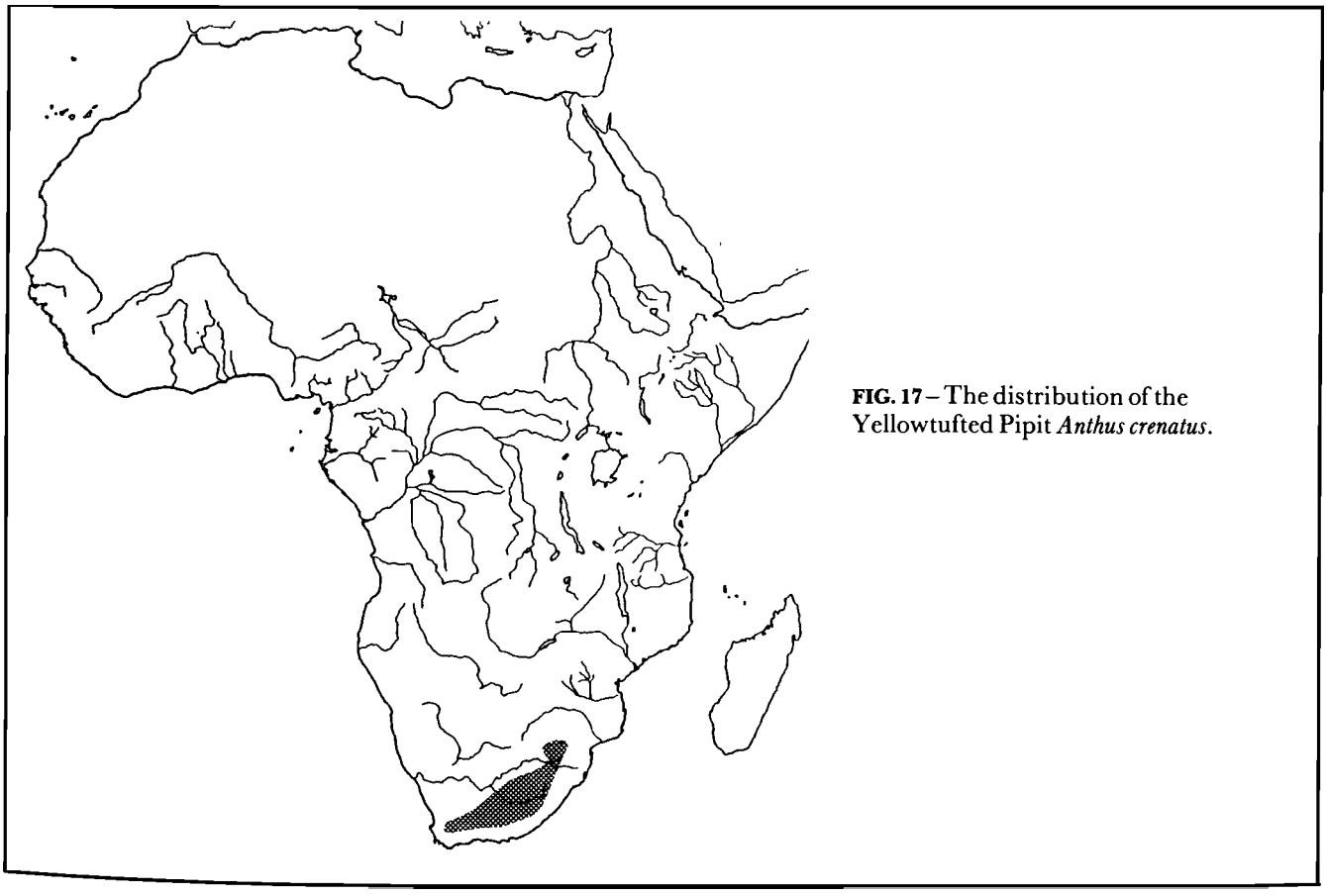


FIG. 17 – The distribution of the Yellowtufted Pipit *Anthus crenatus*.

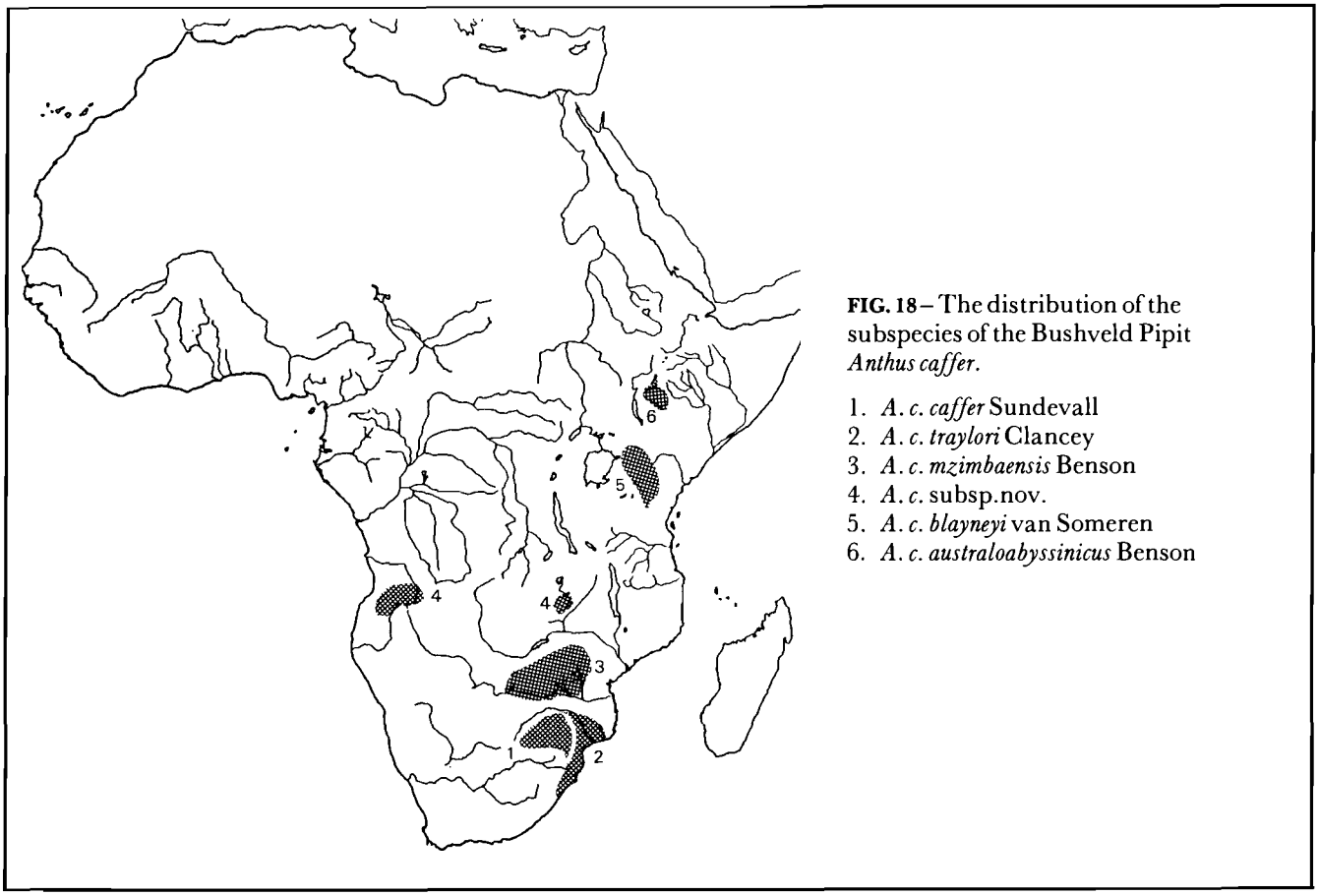


FIG. 18 – The distribution of the subspecies of the Bushveld Pipit *Anthus caffer*.

1. *A. c. caffer* Sundevall
2. *A. c. traylori* Clancey
3. *A. c. mzimbaensis* Benson
4. *A. c.* subsp.nov.
5. *A. c. blayneyi* van Someren
6. *A. c. australoabyssinicus* Benson

Range of species:

Fig. 17. Locally distributed in mountainous terrain and koppie country from the southwestern and southern to the eastern Cape, adjacent Orange Free State, the Transkei along the Drakensberg escarpment, Lesotho, East Griqualand (Matatiele, Kokstad) and high western and upper Natal, the southern and southeastern Transvaal (Ermelo and recently from Nigel), and, perhaps, adjacent western Swaziland. Generally rather sparse, but numerous in the mountains of Lesotho and on Karoo hills. Resident.

Habitat:

The slopes and upper levels of interior mountains, rugged plateaux and karooid country, coarse grassland, often where the grass occurs in isolated tufts amongst rock outcrops and rubble, as well as low bushes, aloes and similar vegetation. Apparently prefers isolated koppies in karoo country. Not gregarious.

Status:

Monotypic and presumed to be relict. Its phylogeny is not obvious, though the assumption of yellowish fringing to the wrist-feathering of the wings, axillaries and underwing coverts suggests linkage with the allopatric Striped Pipit *A. lineiventris*, though this may be due to convergence. Yellow is a feature of the plumage of the Neotropical *A. lutescens* Pucheran, 1855, suggesting the occurrence of yellow in the wings and tails of both *lineiventris* and *crenatus* is indicative of an immediate (superspecies) relationship.

The name Yellowtufted Pipit adopted here is an appellation formerly widely used for the species and its use eliminates the homonymous use of Rock Pipit currently favoured in South Africa, which correctly applies to the polytypic western Palaearctic maritime pipit *A. petrosus* (Montagu), which has recently been split from the mountain breeding Water Pipit *A. spinoletta* (Linnaeus).

Reference: Clancey (1985b).

ANTHUS CAFFER Sundevall 1850

Bushveld Pipit

Diagnostic characters:

Size small. length *ca* 13+ cm (males). Dorsal surface to the lower back dark reddish brown, the feathers narrowly fringed dull ochraceous-buff, the rump dull Tawny (in nominate race). On face, superciliary streak weakly marked. Below, dull white, the breast and sides Warm Buff streaked with brownish black; flanks buffy, and midventer and undertail coverts whitish. Wings much as upperparts; primary 1 = 4, both shorter than 2 and 3; p 5 much shorter than first 4. Primaries 2-4 emarginate. Tail dark brown edged paler, the central pair of rectrices mainly Dresden Brown; outer pair of tail feathers with dull vinaceous-buff tip and outer vane; penultimate pair with only the apex vinaceous-buff. Hindclaw length <7 mm. Base of bill pinkish. Male larger than the female.

Range of species:

Fig. 18. A highly vicariant species, ranging from Zululand and upper Natal to the southern parts of Mozambique (south of the Save River), Transvaal (in bushveld), Swaziland, Zimbabwe, and northern Botswana (east of the swamp region). North of the Zambezi locally in Zambia and taken Malawi as a nonbreeding visitor, with an isolated population in western Angola, reappearing in the north of Tanzania and locally in the interior bush country of Kenya to southern Ethiopia (at Yavello and Mega). Migratory in parts of its range.

Habitat:

Inhabits bushveld savanna of varying density with thin grass understorey and often where seriously overgrazed by ungulates; also thin and more open *Acacia* savanna,

and north of the Zambezi in dambo drainage lines in *Brachystegia* woodland. Generally rather sparse and highly local.

Status:

Polytypic with five described races, but full extent of geographical variation not yet established. One or two further populations probably warrant description as subspecies.

Phylogenetic background uncertain, but probably closely allied in evolutionary terms to the Sokoke Pipit *A. sokokensis*.

References: Benson (1942) and Clancey (1989c).

Subspecies:

(a) ***Anthus caffer caffer*** Sundevall

Anthus caffer Sundevall, *Oefv. K. Sv. Vet.-Akad. Förhandl.*7 1850: 100: Caffraria superiore, *ca* Limpopo flumen, the Type from Mohapoani, Rustenburg district, western Transvaal, *vide* Gyldenstolpe, *Arkiv Zool.* 19A, 1927: 29-30.

Upperparts dark reddish olive-brown, the feathers edged ochreous; rump plain Tawny-Olive. Venter, with breast Warm Buff, narrowly streaked with brownish black; rest of ventral suface buffish white, the flanks plain buff.

Mean wing length of males is 75,4 mm (sd 1,0; 74-77,5; n=13).

Mean wing length of females is 73,3 mm (sd 1,1; 71,5-75; n=8).

Range:

Southeastern Botswana, southwestern Zimbabwe (possibly as migrants from south), the bushveld regions of the Transvaal (on the plateau), western Swaziland and adjacent northern Natal (at Itala). Some winter north of the breeding range on the eastern plateau regions of Zimbabwe.

(b) ***Anthus caffer traylori*** Clancey

Anthus caffer traylori Clancey, Birds of Natal and Zululand, 1964: 397. Bela Vista, Maputo, southern Mozambique.

Less reddish dorsally than nominate *caffer*, the light streaking on the hind neck paler; rump more olivaceous and markedly streaked with brown. Ventrally whiter, the ground to the breast Pale Ochraceous-Buff, and the flanks white, not buff. Smaller in size than the nominate race.

Mean wing length of males is 72,0 mm (sd 1,2; 70-74,5; n=14).

Mean wing length of females is 70,4 mm (sd 1,1; 68,5-72; n=11).

Range:

Coastal plain of southern Mozambique south of the Save River, but known mainly from south of the Limpopo River. Also extends to the Kruger National Park, eastern Transvaal and to northern Zululand to the east of the Lebombo Mtns.

(c) ***Anthus caffer mzimbaensis*** Benson

Anthus caffer mzimbaensis Benson, *Bull. Brit. Orn. Club* 75, 1955: 102: Edingeni, Mzimba district, western Malawi.

Similar in general colouration to *traylori*, but larger in size.

Mean wing length of males is 77,0 mm (sd 1,5; 74,5-80; n=7).

Mean wing length of females is 73,2 mm (sd 1,1; 71-75; n=16).

Range:

Northern Botswana from east of the swamps to the Makgadikgadi Salt Pan and Nata River region and the western plateau of Zimbabwe. Some move north during August and September, reaching northern Zambia (and possibly Shaba, Zaïre) and western Malawi.

Remarks:

The Type of *mzimbaensis* is a migrant from south of the Zambezi and is the sole record for Malawi.

(d) ***Anthus caffer*** subsp. nov.

Compared with *caffer* less dark and reddish dorsally, not so heavily marked with dark brown shaft-streaking. Ventrally, with the buff of the breast and sides brighter, and with the breast-streaking both lighter, finer and more rayed. Size about the same as *caffer*. Similar to *blayneyi* but larger.

Wing lengths of 2 males is 72 and 74.

Wing lengths of 2 females is 72 and 73 mm (Zambia).

Wing lengths of females 71,5-75 mm (n=4) (Angola).

Range:

The plateau of western Angola and Zambia east of 28°E.

Remarks:

The linkage of these two spatially widely segregated populations is tentative, as it has not been possible to compare the limited material of the two segregates.

(e) ***Anthus caffer blayneyi*** van Someren

Anthus blayneyi van Someren, *Bull. Brit. Orn. Club* 40, 1919: 56: Olgerei, Kenya.

Upperparts rather lighter, more tawny coloured, than nominate *caffer*, but rump less contrastingly Tawny-Olive, moderately streaked with brown. Face buffier. Below, with the ground colour of the breast brighter buff, and dark streaking both finer and paler. Size small, resembling *A. c. australoabyssinicus*.

Wing lengths of 2 males is 70 and 71 mm.

Range:

Occurs in southern Kenya and adjacent northern Tanzania from Lolgorien, the Mara River, Loita, Ngong, Konza and Simba to the Serengeti region, Arusha, Kidugallo and Dar es Salaam. Records from south of 5°S are for September and October and may indicate seasonal nomadism.

Remarks:

A single adult sexed as a male, but clearly a female on wing length, in the British Museum (Nat. Hist.) collection, and taken at Lomorn, southwest of Loliondo in the Serengeti region of northern Tanzania, differs in being darker, not so tawny, and more coarsely streaked above that the norm of *blayneyi*, and carried over the rump. Below, with much heavier breast-streaking and the midventer plain white. The wing length in the specimen is 66,5 mm. This example may represent a distinctive Serengeti region race distributed to the west of *blayneyi*.

Described on a series of 10 male and female specimens, the type-specimen obtained on 1 July, 1917. Van Someren (1919) gives the wing lengths of paratypical males as 68-70 mm and of females as 65-67 mm, these measurements agreeing with those of *A. c. australoabyssinicus* given below.

(f) ***Anthus caffer australoabyssinicus*** Benson

Anthus caffer australoabyssinicus Benson, *Bull. Brit. Orn. Club* 63, 1942: 12: 48 km S of Yavello, southern Ethiopia, at 1 375 m asl.

Described as similar to *blayneyi* but distinguishable by having the ventral spotting carried further up the forethroat to almost reach the chin, thereby diminishing the white gular surface. This character was not evident to me at the British Museum (Nat.Hist.) and is probably an artefact of skin make.

Mean wing length of males is 70,1 mm (sd 0,6; 69,5-71; n=4).

Mean wing length of females is 67,1 mm (66-69; n=3).

Range:

Known only from southern Ethiopia near the centres of Yavello and Mega.

Remarks:

The status of this subspecies requires to be reassessed on a larger panel of material – especially of *blayneyi* – than is currently available.

ANTHUS SOKOKENSIS van Someren 1921

Sokoke Pipit

Anthus sokokensis van Someren, *Bull. Brit. Orn. Club* 41, 1921: 124: Sokoke Forest, near Malindi, southeastern Kenya.

Diagnostic characters:

Size small. Length *ca* 13,5 cm. Dorsal surface brownish black, the feathers edged warm to rusty buff, the tips somewhat paler. Face dark with pale supercilium and light flecking and streaking on ear coverts; white below the gape line. Venter white, the breast with ground pale yellowish buff and boldly marked with deep black triangular spots; sides narrowly streaked with blackish brown, the flanks with heavier streaking. Undertail coverts white. Wings with coverts much as upperparts, the median coverts black, edged whitish, forming a wing bar. Tail dark with yellowish buff central rectrices, and outermost quills largely white, the penultimate pair with white on outer vane and light apical wedge to the inner. Primaries 1-4 longer than p 5; 2, 3 and 4 emarginate. Hindclaw short – *ca* 6,5 mm. Sexes apparently closely similar in size. See Fig. 19.

Wing lengths of male and female are 66-69 mm.

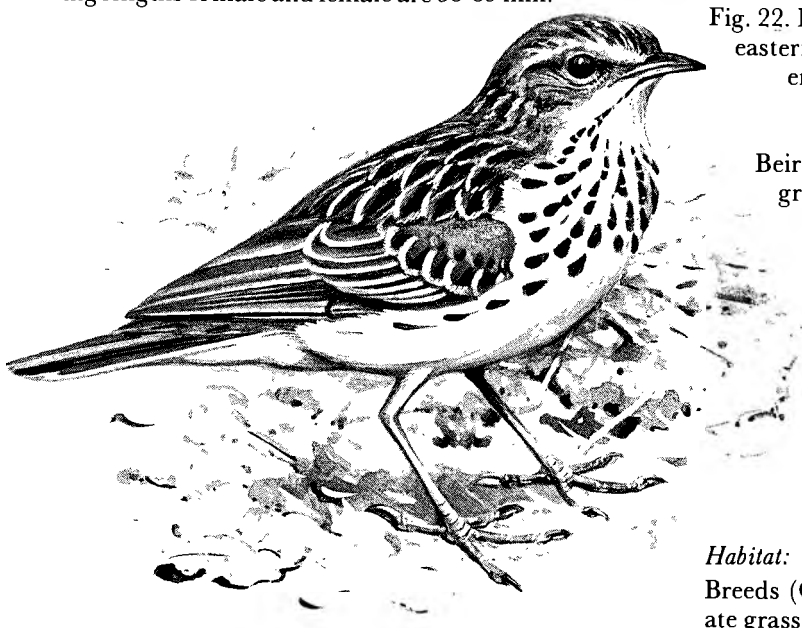


FIG. 19 – Sokoke Pipit *Anthus sokokensis*. The small size, variegated dorsal pattern, black sagittate breast streaking and coastal forest floor environment are characteristic.

Range of species:

Fig. 20. Extremely localized. Restricted to the Sokoke Forest and Gede district of coastal Kenya, south to northeastern Tanzania at Moa (04°46'S, 39°10'E) and the Pugu Hills, inland of Dar es Salaam (06°53'S, 39°05'E), though not recently recorded from so far south (Britton 1980).

Habitat:

Described as typically a bird of the ground stratum of uncleared coastal evergreen forest, but occurring in open areas in *Brachystegia* woodland. Flies to a high perch in a tree when flushed. Apparently resident.

Status:

Monotypic. Presumably relict, perhaps stemming from the same ancestral stock as the commoner and more widespread *A. caffer* which inhabits open savanna woodland.

ANTHUS BRACHYURUS Sundevall 1850

Shorttailed Pipit

Diagnostic characters:

Size small – the smallest Afrotropical pipit – length *ca* 12 cm. Upperparts blackish brown, the feathers edged with Citrine Drab. Face relatively dark with little obvious lightening over the superciliary surface. Below, with forethroat and breast Colonial Buff, the breast boldly streaked with black or dark brown, the streaking, in finer mode, carried down over the lateral surfaces to the flanks; midventer white. Wings much as upperparts, but median coverts narrowly tipped with whitish and first remex with white outer vane. Tail dark, the outermost rectrix off-white on the outer vane and light wedge-shaped tip to inner. Wing formula: primaries 1 = 4, pp. 2 and 3 longer than either 1 or 4; p.5 much shorter. Primaries 2-4 emarginate. Tail length 37-40 mm, hindclaw 6-7 mm. Base of lower mandible flesh-coloured. Male longer winged than female, but little difference in total length between the sexes. See Fig. 21.

Range of species:

Fig. 22. Highly vicariant. Ranges disruptedly from southeastern South Africa in Natal and Zululand, the eastern Orange Free State to the southern Transvaal highveld, and recorded from the lower Limpopo River floodplain and the Savane, north of Beira, in Mozambique (possibly on nonbreeding grounds) and once from Birchenough Bridge, Zimbabwe (possibly on migration). North of the Zambezi, present in the highlands round the northern end of Lake Malawi, in Tanzania, north in the Rift region to western Uganda and the Ruwenzori Range, and west to northeastern and northwestern Zambia, Zaïre south of the Lower Guinea Forest, reaching northern Angola, the Congo Republic and southern Gabon. An altitudinal and spatial migrant in many parts of its range.

Habitat:

Breeds (October-early April) in relatively short temperate grasslands in upland country, in pasturage, meadows etc., but apparently not in fallow cultivation. On wintering grounds apparently inhabits moister situations, and encountered in numbers in wet grassland on the northeastern flats of Zululand, the seasonally flooded country

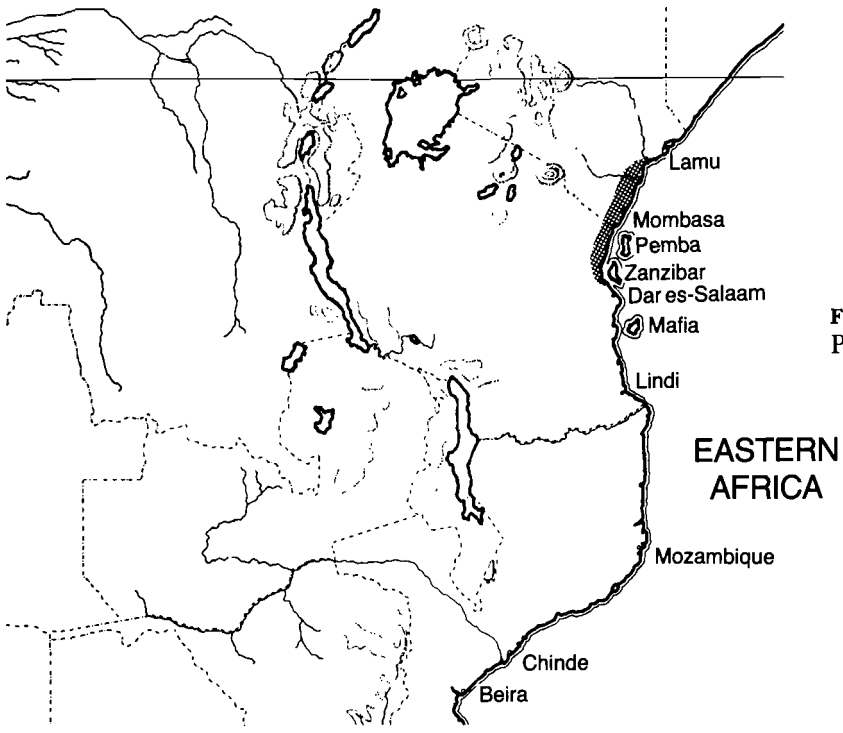


FIG. 20 – The distribution of the Sokoke Pipit *Anthus sokokensis*.

of the Savane, north of Beira, Mozambique, and in Zambia in seasonally wet grasslands and dambos.

Status:

Polytypic with three races. The geographical variation is still not well understood, as much of the material in museums is in worn and faded condition and unsuitable for critical analysis.

References: Clancey (1985a, b) and Vincent (1986).

Subspecies:

(a) ***Anthus brachyurus brachyurus*** Sundevall
Anthus brachyurus Sundevall, *Oefv. K. Sv. Vet.-Akad. Förhandl.* 7, 1850: 100: near Durban, Natal, but Type from upper Umlaas River, Natal, *vide* Gyldenstolpe, *Arkiv Zool.* 19A, 1, 1927: 29.

Upperparts blackish brown, the feathers narrowly fringed olivaceous-buff (Citrine-Drab). Below, breast yellowish buff streaked with black or very dark brown.

Mean wing length of males is 66,9 mm (sd 0,9; 65-68; n=10).

Mean wing length of females is 63,5 mm (sd 0,6; 62,5-64; n=10).

Range:

Recorded breeding in Natal, western Zululand and the southern Transvaal highveld, and recorded seasonally from the lowlands of northeastern Zululand and southern Mozambique in the lower Limpopo River floodplain and the Savane region to the north of Beira, when not breeding. Also recorded (possibly on migration) from southeastern Zimbabwe at Birchenough Bridge. Some birds in worn dress from Zambia and even Uganda (Gaisimairi) are not separable from nominate *brachyurus*. Freshly moulted material is needed to resolve their status.

(b) ***Anthus brachyurus*** subsp. nov.

Differs from the foregoing subspecies in being darker and warmer olivaceous-brown above, and yellower below with the breast streaking heavier, often somewhat blotched, and in this approaching *A. b. leggei*.

Range:

Highlands clustered round the northern end of Lake Malawi (Dabaga Highlands, Iringa uplands, and Njombe area) in southern Tanzania.

FIG. 21 – Shorttailed Pipit *Anthus brachyurus*. The small size, short tail and white outer vane to first remex distinguish this species.

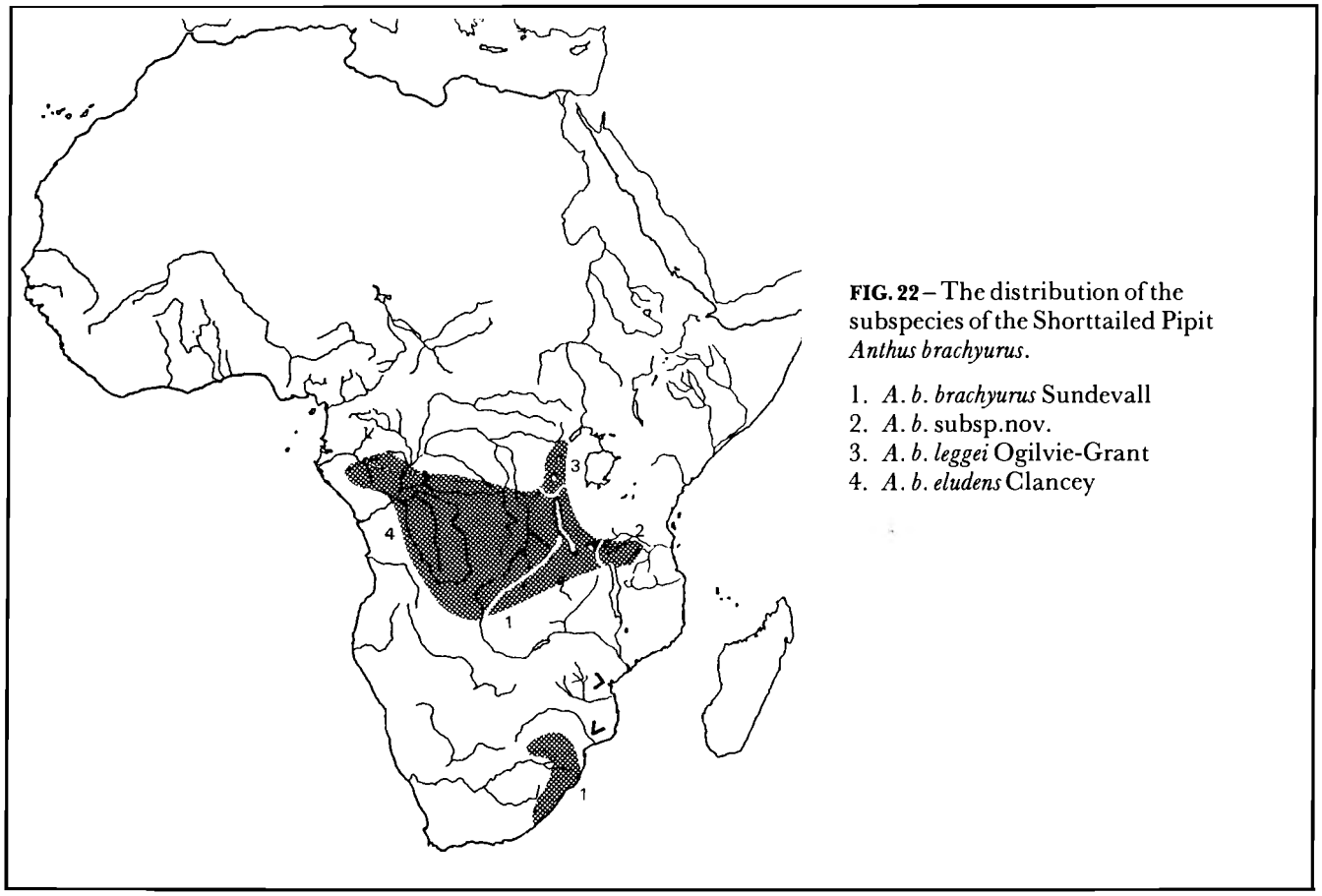


FIG. 22 – The distribution of the subspecies of the Shorttailed Pipit *Anthus brachyurus*.

1. *A. b. brachyurus* Sundevall
2. *A. b.* subsp.nov.
3. *A. b. leggei* Ogilvie-Grant
4. *A. b. eludens* Clancey

Remarks:

Freshly moulted specimens are needed before this form is named.

(c) ***Anthus brachyurus leggei*** Ogilvie-Grant

Anthus leggei Ogilvie-Grant, *Bull. Brit. Orn. Club* 19, 1906: 26: Mokia, southeastern Ruwenzori Range, western Uganda.

More charcoal black, less olive or ochreous, over the dorsal surfaces, the dark shaft-streaking heavier than in nominate *brachyurus*. Below, with the ground to the breast pale vinaceous rather than yellowish buff, the black breast-streaking much heavier and more diffuse. Rest of ventral surface whiter. Ranges a little smaller in size.

Mean wing length of males is 64,7 mm (sd 0,7; 63,5-65; n=5).

Mean wing length of females is 62,3 mm (61,5-63,5; n=3).

Range:

Grasslands of the lower aspects of the Ruwenzori Mtns in western Uganda. A bird taken at Bokalakala, in Kasai Occidental, Zaïre, at 02°05'S, 16°24'E, in August is attributed to this form.

Remarks:

It has been suggested that the sharply differentiated *leggei* may be specifically separable from *A. brachyurus* in line with Ogilvie-Grant's original proposal of it as a full species. Worn breeding specimens from Gaisimairi, Uganda, taken in February may be nominate *brachyurus* or the unnamed form listed above. Freshly moulted material is needed to resolve their status and relationship to the contiguous *leggei*.

(d) ***Anthus brachyurus eludens*** Clancey

Anthus brachyurus eludens Clancey, *Bull. Brit. Orn. Club* 105, 4, 1985: 134: Petianga (Pebeangu), Kasai Occidental, Zaïre, at 04°22'S, 20°48'E (see Vincent, *Bull. Brit. Orn. Club* 106, 3, 1986: 124-126).

More uniform, less sharply streaked, than nominate *brachyurus* owing to the darker fringing to the dorsal feathering. Ventrally yellower, the breast-streaking finer. In the wings, the coverts and outer vanes of the remiges (including the tertials) are redder (Snuff Brown, versus light olivaceous-buff). Similar in size.

Range:

The southern drainage fan of the Zaïre River, from Shaba and Kasai Occidental, Zaïre, west to Lunda, northern Angola, the Congo Republic (at Djambala), and southern Gabon. The population breeding over the Zaïre/Zambezi watershed in Zambia may be part of the present subspecies.

Genus ***HEMIMACRONYX*** Roberts

Hemimacronyx Roberts, *Ann. Trans. Mus.* 8, 1922: 258. Type, by original designation, *Anthus chloris* Lichtenstein.

Ventrally brightly coloured species of Anthinae, of moderate size and with largely yellow underside (including underwing coverts). Dorsal facies dappled rather than streaked. Primary 5 is longer than in *Anthus* spp. Tail relatively long, with white restricted to two outermost pairs of rectrices; undertail coverts long and acuminate. Legs and toes slender; hindclaw long and decurved. Bill slender and rictal bristles poorly developed. Inhabits temperate grasslands and largely sedentary. Restricted to the Afrotropics.

References: Cooper (1985) and Clancey (1985b, 1987a).

HEMIMACRONYX CHLORIS (Lichtenstein, 1842)

Yellowbreasted Pipit

Anthus chloris Lichtenstein, *Verz. Samml. Kaffernl.* 1842; 13: Kaffirland, the Types from the Likwa (= Vaal) and Modder Rivers, Orange Free State, *vide* Stresemann, *Ann. Mus. Roy. Cong. Belg.*, new ser. in 4, Zool. 1, 1954: 81.

Diagnostic characters:

Medium size *ca* 16,5 cm. Upperparts dark olive-brown, the feathers broadly edged all round with yellowish buff, the mantle and scapulars appearing more dappled or blotched than streaked. Face buffish brown, the supercilary streak bright lemon-yellow. Below, malar surfaces and forethroat to breast and midventer bright lemon-yellow (more buffish in female), with the sides of the breast and lateral surfaces washed with pale cinnamon or deep rufous buff and narrowly streaked with blackish brown; lower venter and undertail coverts white, the latter dusky basally. Wings much as upperparts, but primaries edged yellow on outer vanes. Tail dark, with light edging to outer vanes of the rectrices; outermost pair with outer vane and wedge on inner white and penultimate with terminal white only. Wing formula: first four primaries longest, p 5 shorter than first 4; pp 2-4 emarginate. Hindclaw length <13 mm. Base of lower mandible yellowish. Sexes closely similar in size.

Mean wing length of males is 86,8 mm (sd 2,6; 84-90,5; n=8).

Mean wing length of females is 83,4 mm (sd 3,0; 81,5-88,5; n=5).

Range of species:

Fig. 23. Temperate, high elevation short grasslands of the northeastern Cape to Lesotho (not on summit plateaux or alpine zone of Drakensberg massif), the Drakensberg escarpment of Transkei and western Natal (including Griqualand East), extending north to the eastern Orange Free State, Upper Natal and southeastern Transvaal (north to about Dullstroom). Perhaps western Swaziland on highveld. Breeds between 1 400 and 2 400 m asl. In nonbreeding season extends to lower elevations, towards the coast in the eastern Cape and Transkei, and possibly Natal (no recent records).

Habitat:

When breeding, inhabits meadowlike, lush tussock grassland at moderately high elevations and gradually sloped well grassed hills in upland and escarpment country. On wintering grounds, in pasturage and fallow cultivation in small parties, usually on its own and not with other pipits and longclaws.

Status:

Monotypic. Endemic to the Southern African Subregion and now seen as closely allied to the northern representative of the genus *Hemimacronyx*.

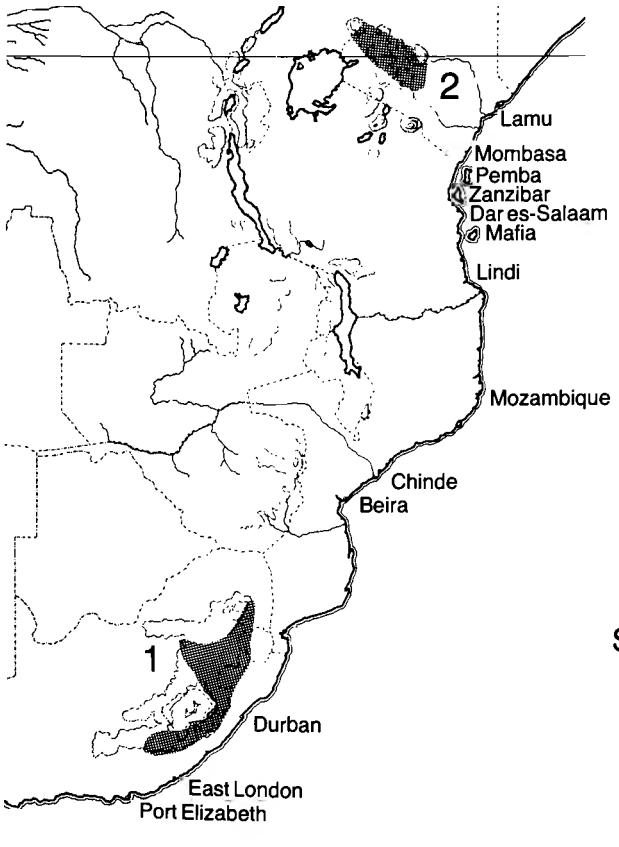
HEMIMACRONYX SHARPEI (Jackson 1904)

Kenyan Yellowbreasted Pipit

Macronyx sharpei Jackson, *Bull. Brit. Orn. Club* 14, 1904: 74: Mau Plateau, Central Highlands, Kenya.

Diagnostic characters:

Similar in general facies to the previous species, but brighter above, with more straw-coloured or lighter tawny feather edgings. Ventrally with the ground deeper lemon-yellow, lacking the warm buff intrusion present in *chloris*, and with the breast streaking heavier and blacker; flanks and undertail coverts broadly streaked dark brown and not plain. Structure as in *H. chloris*, but tail rather



EASTERN and SOUTH-EASTERN AFRICA

FIG. 23 – The distribution of the genus *Hemimacronyx* Roberts.

1. Yellowbreasted pipit *H. chloris* (Lichtenstein)
2. Kenyan Yellowbreasted Pipit *H. sharpei* (Jackson)

shorter (58-61 mm versus 61-66 mm). Hindclaw <15 mm.
Wing length of 2 males is 88 and 89 mm.
Wing length of 1 female is 85 mm.
Wing lengths of male and female is 78-85 mm (Jackson 1938).

Range of species:

Fig. 23. Restricted to the highlands of Kenya, extending from lower Mt Elgon and the Rift Highlands from Uasin Gishu, Nandi and the Mau Plateau, to the Kinangop, Aberdares and the grasslands of lower Mt Kenya. Resident.

Habitat:

Open, short (often well-grazed) grasslands of interior highlands between 1 900 – 2 600 m asl.

Status:

Monotypic. Endemic to the interior of East Africa. Congeneric with *H. chloris*, the two forming an evolutionary link between the widespread and relatively primitive pipits of the genus *Anthus* and the more derived Afrotropical true longclaws of the genus *Macronyx* Swainson.

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