


A new genus of Spilomelinae in Africa (Lepidoptera: Pyraloidea, Crambidae).

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Abstract: *Pseudambia* **gen. nov.** is described from Africa for the species *Ambia albomaculalis* Hampson, 1897 **comb. nov.** together with three new species: *Pseudambia kingstoni*, *P. manicensis* and *P. stellata*.

Key words: Moths, new genus, new species, Steniini.

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INTRODUCTION

Ambia albomaculalis Hampson (1897) has long been known as a common species in West Africa. The terminal eyespots on the hindwing have some similarities with those of many Acentropinae and for a long time the species was placed in that family (formerly Nymphulinae), e.g. by Hampson (1897) in Hydrocampinae.

A similar situation occurred in Asia where several colourful species were assigned to Acentropinae. Examination of the genitalia proved otherwise and Mey & Speidel (2010) described the genus *Malickyella* to accommodate them.

The genus *Ambia* Walker, 1859 type species *ptolycusalis* Walker, 1859, belongs to Musotiminae. Since *albomaculalis* does belong to Acentropinae it cannot remain in the genus *Ambia*; it is a species without an appropriate genus.

In recent years specimens similar to *albomaculalis* were collected in East Africa which led to further examination and the realisation that these species also do not belong to Acentropinae.

Abbreviations

DJLA: David Agassiz, private collection to be deposited in NHMUK
NHMUK: The Natural History Museum, London

PSEUDAMBIA gen. nov.

type species: *Ambia albomaculalis* Hampson, 1897

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Description of genus:

Colourful moths of small size, with wingspan less than 18 mm. Wing venation as shown (Fig. 1), the hindwing with

termen indented below apex. The males have a swollen hyaline patch near the base of the forewing (Fig. 2) and on the underside this can be seen to be without scales (Figs 3 & 4), the purpose of this feature is not known; in the male genitalia the uncus bears spines pointed towards its base, female genitalia have a signum in the corpus bursae comprising a scobinate patch containing a sclerotised ridge.

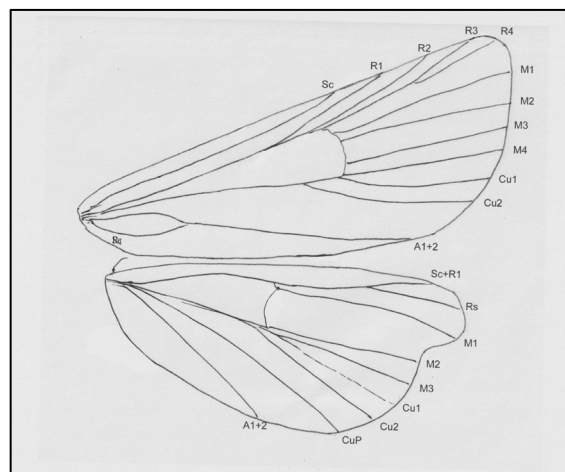


Figure 1 – Wing venation.



Figure 2 – Forewing of male showing subhyaline patch.

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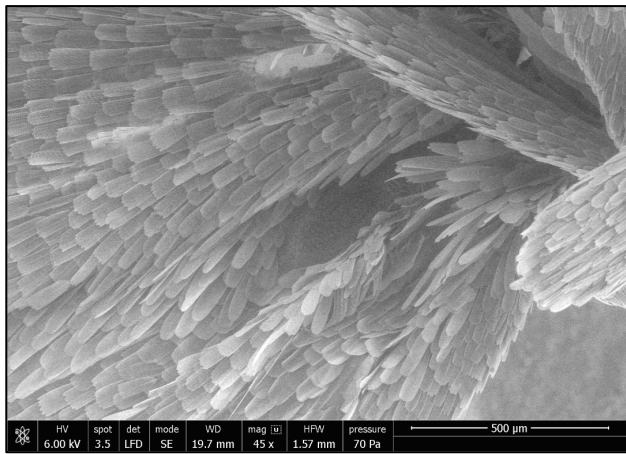


Figure 3 – Underside of male forewing.

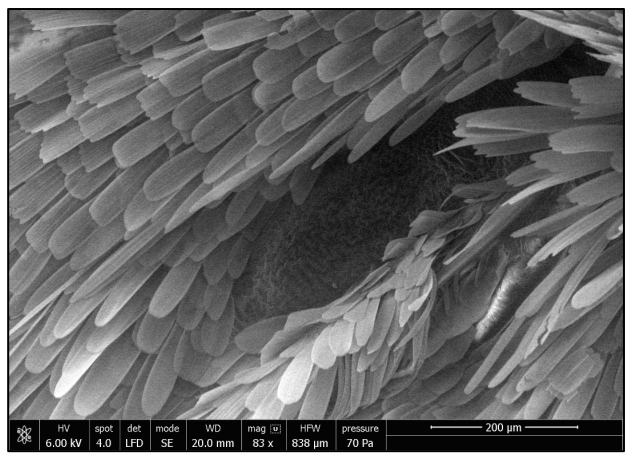


Figure 4 – Detail of patch lacking scales.

Hitherto moths of this genus have only been known from West Africa, but similar species have recently been observed in East Africa and countries further south, their differences are described and illustrated.

***Pseudambia albomaculalis* (Hampson, 1897) comb. nov.**
Ambia albomaculalis Hampson, 1897: 165.
 Figs 5–7, 11, 15.

Description of adult (Figs. 5–7): wingspan 10–18 mm. Described by Hampson (1897) as follows: “Bright fulvous irrorated with black. Forewing with indistinct dentate subbasal, ante- and postmedial black lines; the outer area not irrorated; three black specks on costa towards apex; silvery fasciae on veins 7 and 6; a large round white spot beyond lower angle of cell; an orange marginal band with black line on its inner edge, inside which is a white line. Hindwing with irregularly sinuous postmedial line, with yellow on its outer edge; three white-edged black spots on an orange ground at middle of margin; cilia of both wings dark.”

Male genitalia (Fig. 11): uncus narrow, clothed with spines, the ratio of valva length to width is 2.5. The aedeagus ratio of length to width is 7.

Female genitalia (Fig. 15): ductus bursae narrow.

Diagnosis: The large spot beyond the disc on the forewing is conspicuous in this species, it is usually white but occasionally predominantly yellow. In the male genitalia the narrow uncus, together with comparatively broad valvae separate this species from its congeners.

Biology: not known.

Distribution: West and Central Africa: Sierra Leone to Cameroon and Uganda (Fig. 18).

Type material: Holotype ♀ Aburi [Ghana] Carter (NHMUK).

Other material examined: GHANA: 7♂4♀ Central, Kakum N.P. 150 m. 5°20'54" N 1°23'07" W 19.xi.2011 D.J.L. Agassiz, Central, Kakum N.P. 150 m. 5°21'17" N 1°22'20" W 20.xi.2011 D.J.L. Agassiz, 2♂ Volta, Biakpa 480 m. 6°51'03" N 0°25'19" E 22.xi.2011 D.J.L. Agassiz; LIBERIA: 1♂ Oxford Exp. to Mt Nimba, (Grassfield) 1.viii.1978; UGANDA 1♂1♀ Bushenyi District, Kalenzi Forest Reserve, 0°23.341' N 30°05.169' E 29.iii.2012 A.J. Kingston (DJLA); SIERRA LEONE: 1♀ (without abdomen) Bo 13.vi.1969 R.J. Revell; 4♂ 16.iv.1895, 19.v.1895, vi.1895, vii.1895 W.G. Clements; 1♂ A.B. Frere BM Pyralidae genitalia slide 21355; NIGER: 3♀ Degama Dr Ansorge; IVORY COAST: Bingerville 1♀ 28–31.vii.1915, 2♂2♀ 5–7.viii.1915, 1♀ 7–11.viii.1915, 1♀ 12–14.viii.1915, 2♂ 14–17.viii.1915, 2♀ 19–25.viii.1915, 1♀ 11–15.ix.1915, 2♂5♀ undated 1915 (G. Melou); NIGERIA: 1♀ Badegi, Federak Rice Research Institute 19.iii.1972; 1♂ Asssabe R, Niger Dr Crosse; 1♂ Aybabum W. State 5.iii.1973 J.T. Medler colln.; 1♀ Ile-Ife, W. State 19.iii.1973 J.T. Medler colln.; 1♂2♀ Warri v.1897, 4♂4♀ vi.1897, 2♂1♀ vii.1897 Dr Roth; 1♀ N. Nigeria Onitsha vii.1910 J.A. de Gaye; 1♂ Jemata 17.ii.1911 G.B. Simpson; Rivers, Port Harcourt 1♀ 22.iv.1957, 1♀ 19.xii.1956, 1♀ 13.v.1955, 1♂ 10.vii.1955, 1♂ 2.vii.1955 B.J. MacNulty; 1♂ Ilesha, S. Nigeria (Capt Humfrey); 1♂ Warri Dist., S. Province, B. Claydon; 1♀ R. Niger between Akassa & Asava F.D. Lugard; CAMEROON: 1♂2♀ Johann-Albrecht Höhe 11.iii.1896 & 2.iii.1896 L. Conradt; Lolodorf 2.iii.1895, 13.iii.1895, 26.i.1895, 25.ii.1895 L. Conradt (NHMUK).

***Pseudambia stellata* sp. nov.**

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 Figs 10, 14, 17.

Description of adult (Fig. 6): wingspan 9–10 mm. Head golden brownish, labial palpus buff, antenna weakly annulated; Thorax and tegulae: a mixture of golden and brown. Forewing costa orange interrupted by blackish spots, a silver subcostal streak, middle of wing mixed orange and blackish brown, a small white spot beyond disc, terminal area orange with a white subterminal fascia, termen dark brown, fringe dark fuscous except for a pale orange section below apex and near tornus. Hindwing indented below apex, brownish with an indistinct orange median fascia, termen orange with three black spots, fringe dark fuscous except pale orange at indentation. Abdomen banded orange and dark brown. Legs ochreous white with blackish scales on joints.

Male genitalia (Fig. 14): uncus long and slender terminating in an elongate knob clothed with spines, gnathos absent, valvae ovate, 3.5 times as long as wide., saccus drawn out to a point but not much extended; aedeagus straight and cylindrical 3 times as long as broad, cornutus a small elongate rectangular plate.

Female genitalia (Fig. 17): ostial chamber cylindrical, ductus bursae long and narrow then abruptly widening into corpus bursae; corpus bursae with a signum comprising a small flattened rectangular plate; the ductus bursae is more than twice width of colliculum.

Diagnosis: similar to *albomaculalis* but of smaller size and with a small bright white spot beyond disc. Male genitalia with much narrower valva.

Biology: not known.

Derivation: named from the bright star-like spot on the forewing.

Distribution: Kenya, coastal region and Tanzania (Fig. 18).

Type material: Holotype ♂ KENYA, Coast Province, Buda Forest 73 m 4°27'42" S 39°27'40" E 7.xii.2018 D. Agassiz & A. Kingston, slide DJLA 1760 (DJLA); 5 paratypes ♀, same data as holotype. Slides 1754, 1755 and abdomen 3 used for DNA analysis.

Other material examined: 1♂ KENYA: Kwale county, Shimba Hills 350 m 4°12'52" S 39°23'38" E 2–4.v.2024 D. Agassiz & A. Kingston; 1♀ TANZANIA: Morogoro Region; Kilombero District, Udzungwa Mts National Park, Mang'ula 550 m. 7°50.705' S 30°05.120' E 20–21.xi.2005 A. Kingston, M. Fibiger, L. Aarvik.

***Pseudambia kingstoni* sp. nov.**

urn:lsid:zoobank.org:act:1D32E40F-E9AF-48BF-B230-E76C7BD068BF
Figs 8, 12.

Description of adult (Fig. 8): wingspan 13–14 mm. Head pale orange, labial palpus straw with brown lateral spots, antenna dark brown. Thorax and tegulae mixed orange and brown. Forewing with costa orange interrupted by black spots, a pair of thin black parallel lines subcostally to $\frac{2}{3}$ of wing length, beneath them a silvery-grey streak, middle of wing brown with a partial orange dorsal fascia from $\frac{1}{4}$ of dorsum, a yellowish elongate spot beyond disc, a subterminal whitish strigula outwardly edged black, terminal area orange, terminal fringe dark brown interrupted by a pale section below apex above tornus. Hindwing basally brown, a partial irregular orange median fascia, terminal area orange with three black dots, fringe fuscous. Legs whitish, blackish scales on joints.

Male genitalia (Fig. 12): have a broader uncus than *albomaculalis*, valva length is 3 times width, the aedeagus is 5 times as long as broad.

Female genitalia: not known.

Diagnosis: this species is similar to *albomaculalis* without the white coloration of the spot on the forewing; in the male genitalia the uncus is wider than that of *albomaculalis*, saccus pointed.

Biology: not known.

Derivation: named after the collector Tony Kingston.

Distribution: Northern Zambia (Fig. 18).

Type material: Holotype ♂ ZAMBIA: Luapula Province, 25 Km E of Mbereshi, Ntumbachushi Falls 1146 m. 09°51.32' S 28° 56.586' E 3.iii.2019 A.J. Kingston DJLA slide 1757 (DJLA).

1 paratype ♂ same data as paratype [ZAMBIA] Lialui, Barotse (Coryndon) (NHMUK).

***Pseudambia manicensis* sp. nov.**

urn:lsid:zoobank.org:act:64026855-B85F-48D8-99BB-196F007F770A
Figs 9, 13, 16.

Description of adult (Fig. 9): wingspan 10–13 mm. Head brownish, labial palpus pale ochreous, antenna brown. Thorax and tegulae dark brown. Forewing costa orange interrupted by black spots, middle of wing dark brown with irregular orange dorsal blotch, and elongate white spot beyond disc, a subterminal white strigula outwardly edged

black, termen orange, fringe dark fuscous but a pale yellow section beneath apex and above tornus. Legs pale ochreous with blackish scales on joints.

Male genitalia (Fig. 13): the aedeagus is 5 times as long as broad and valva of similar shape to Kenyan specimens of *stellata*.

Female genitalia (Fig. 16): the ductus bursae is more than twice width of colliculum. **Diagnosis:** This species differs from the above in the smaller white spot on the forewing; in the male genitalia the aedeagus is long and narrow compared with other species.

Biology: not known.

Derivation: named from the Zimbabwe province where the species has been recorded.

Distribution: Eastern highlands of Zimbabwe (Fig. 18).

Type material: Holotype ♂ ZIMBABWE, Manicaland, Bvumba 1300 m. 19°03'33" S 32°43'41" E 3.xi.2018 D. Agassiz & K. Larsen (DJLA). 4 paratypes: ZIMBABWE 1♂ Manicaland, Upper Bvumba 1680 m. 19°07'15" S 32°46'10" E 3.xi.2016 D. Agassiz & K. Larsen (slide DJLA 1756); 1♀ Aberfoyle 821 m. 18°17.669" S 32° 58.124' E 27–28.ii.2022 D. Agassiz & A. Kingston (slide DJLA 1758); 1♂1♀ Manicaland, Chipinge Highlands, Chirinda Forest campsite, Forestry Commission 1171 m. 20°24.603' S 32°41.965' E 16–18.x.2017 A. Kingston (abdomen 4 for DNA).

The systematic position of *Pseudambia* within Crambidae: *Pseudambia* gen. nov. is provisionally placed in the Spilomelinae, tribe Steniini Guenée, 1854 (sensu Mally *et al.* 2019) based on the following characters: uncus with a single head bearing bifid chaetae; straight to convex valva costa; valva simple without fibulae; phallus with caecum; ostium and ductus bursae unsclerotised, the latter very short in length; signum a short transverse line or arc bearing short spikes, somewhat similar to *Bradina* Lederer. The genus lacks the long legs in adults and the slender, long abdomen in males.

REMARKS

I am grateful to Théo Léger for offering to analyse the DNA but unfortunately it was not possible to obtain a sequence from all the abdomens so there is no further support for the distinctions based on morphological characters.

ACKNOWLEDGEMENTS

My thanks are due to Tony Kingston for making material available and to Théo Léger (Berlin) and Richard Mally (Prague) for advice, especially regarding the relationships within Crambidae.

LITERATURE CITED

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morphology. *Arthropod Systematics & Phylogeny* **17**: 141–204.

MEY, W. & SPEIDEL, W. 2010. *Malickyella* gen. nov. – a new moth genus in the family Crambidae

(Lepidoptera, Pyraloidea) from South-East Asia. *Denisia* **29**: 215–222.



Figures 5-10 – Adult specimens: 5, 6, 7 *albomaculalis*; 8 *kingstoni*; 9 *manicensis*; 10 *stellata*.

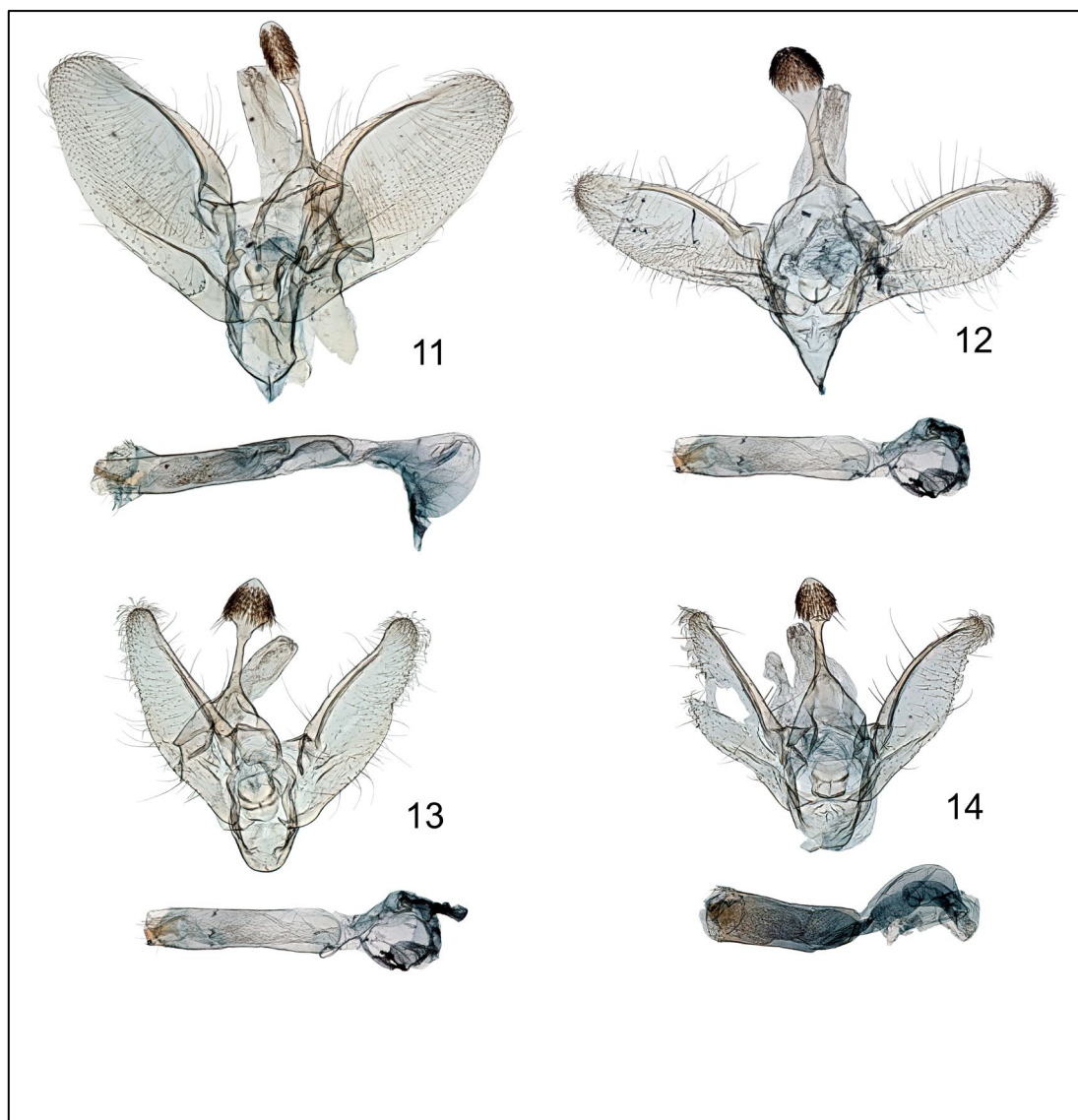


Figure 11-14 – Male genitalia: 11 *albomaculalis*; 12 *kingstoni*; 13 *manicensis*; 14 *stellata*.

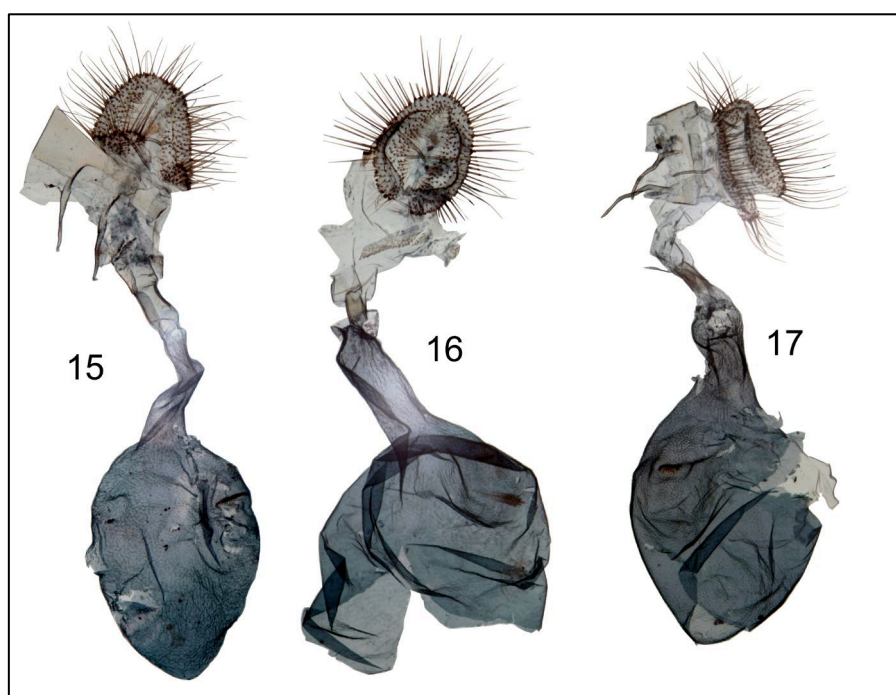


Figure 15-17 – Female genitalia: 15 *albomaculalis*; 16 *manicensis*; 17 *stellata*.

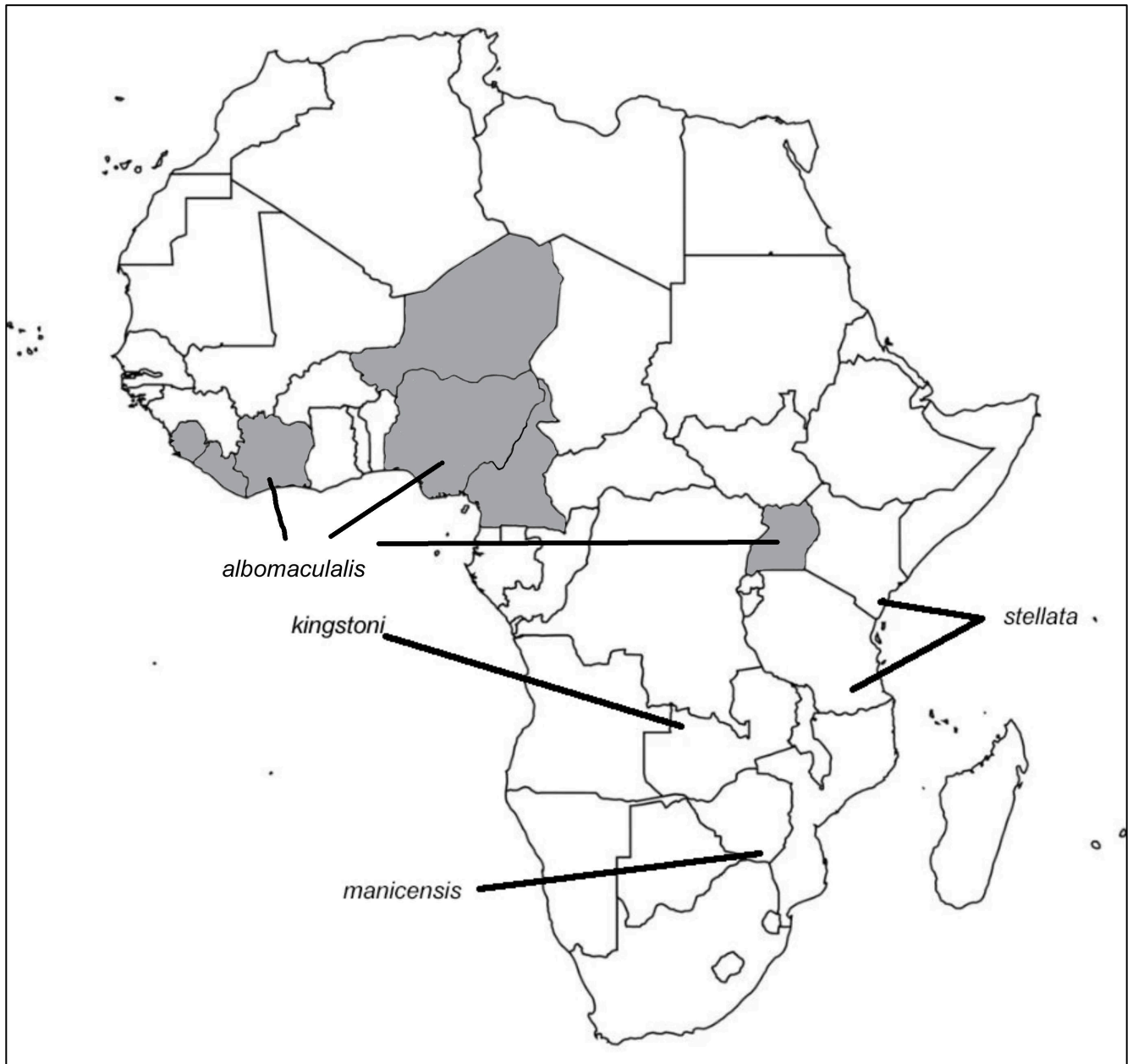


Figure 18 – Map of Africa showing distributions.