

A Natural History of the Wild Fruits of Taita Hills, Kenya

Robert Copeland

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The plant species and reared insects on front and back covers;

Front cover, left to right

Row 1. *Momordica spinosa*; *Taomyia* sp. near *marshalli*; *Englerophytum natalense*; *Paraccra mimesa*; *Mystroxyton aethiopicum*.

Row 2. *Polyscias stuhlmannii*; *Psychotria capensis* subsp. *riparia*; *Thaumatotibia batrachopa*; *Rapanea melanophloeos*; *Toddalia asiatica*.

Row 3. *Cucumis prophetarum*, Alucitidae sp., *Diospyros zombensis*, Braconidae: Cheloninae: probably *Phaedrotoma* sp., *Englerina kagehensis*.

Back cover, left to right

Row 1. *Berchemia discolor*; *Ceratitis* sp. near *rosa*; *Agelaea pentagyna*; *Yponomeuta strigillata*; *Cryptolepis* sp. probably *ibayana*.

Row 2. *Vepris uguenensis*; *Syzygium guineense*; *Chaetonerius* sp.; *Chasmanthera dependens*; *Perilampus inchoata*.

Row 3. *Psychotria lauracea*; *Prophantis smaragdina*; *Uvaria scheffleri*; Curculionidae sp.; *Rubus rosifolius*.

Row 4. *Turraea* sp. probably *robusta*; *Lannea schweinfurthii*; Eurytomidae sp.; *Solanum anguivi*; *Psychotria kirkii*.

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Acknowledgements

The authors would like to thank the Director, Kenya Forest Service, for permission to sample fruits and insects in the forests of the Taita Hills. Raymond Gagne, Amnon Freidberg, John Swann, and Mengual Ximo helped with identifications of Diptera, and Scott Miller, John Brown and David Adamski identified the moths. Robert Kula was kind enough to provide tentative identifications of braconid wasps. Alain Roques recognized the three megastigmine Torymidae as new phytophagous wasps. Mr. Mwadime Mjomba and Mr. Eric Mwakajana were excellent field workers.

We thank the Ministry for Foreign Affairs of Finland for funding through the Climate Change Impacts on Ecosystem Services and Food Security in Eastern Africa (CHIESA) project.

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October 2015

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INTRODUCTION

Fruits are the vessels in which seeds develop, and plant species have evolved many strategies for protecting and dispersing their seeds. The vast majority of fruits have seeds that are either wind-borne or dispersed by frugivorous vertebrates. Edible fruits are often brightly colored (e.g. red, orange, or yellow) and easy to locate, and are an important food for many species of primates (and other mammals) and birds. For these fruits, seed dispersal often depends on fruit consumption and passage of the seed(s) through the vertebrate gut. Alternatively, the often unpalatable seed may be separated from the fruit pulp and discarded at some distance from the parent plant. Duller fruits (brown, black) are more difficult to see and less likely to be fed upon by diurnal (daylight-active) animals. These fruits are often eaten by nocturnal Macrochiroptera species (fruit bats) and other night-active mammals (e.g. bush babies).

Of course, fruits are not fed upon by vertebrates only. The larvae of innumerable species of flies, beetles, moths, and butterflies feed on fruit pulp or seeds, and the cost of protecting cultivated fruits may be substantial, both for the commercial grower and the smallholder farmer. Many fruit species, whether farmed or wild, are fed on by more than one pest insect, and many of the insects that feed on fruits are attacked, in turn, by parasitoid wasps, often by more than one species. Thus, individual fruit species may be excellent models for the study of tritrophic interactions (host fruit/insect pest/parasitoid wasp) in a discrete, confined environment. Additionally, considerable effort has been made to develop methods of biological control of fruit pests by their parasitoid wasps, with some notable successes.

In this book we present a natural history of the wild fruits of the Taita Hills in southeastern Kenya (Figure 1), based primarily on a year-long survey carried out between November 2011 and October 2012. The book includes data on the fruits themselves and on the insects reared from them. Because the summarized results of the survey are presented largely in visual form, the book can also be used as a field guide. As have other authors, we consider Kasigau Mountain to be an outlier of the Taita Hills and have included it among our collection sites (Figure 2). Like the Taita Hills, Kasigau belongs to the Kenyan block of the Eastern Arc Mountains, ancient non-volcanic mountains known for their high level of endemic plant and animal species.

The goal of our survey was to document the altitudinal, temporal, and habitat distributions of fruits of non-wind-dispersed plant species and the insects (both pests and beneficial parasitoids) that are associated with them. These data will provide the information required to assess the effects of global warming as it impacts the relationship among fruit, pest, and parasitoid. Of prime importance will be the potential increase (or decrease) in the exposure of cultivated fruits to insect attack.

Methods

During our survey, 11 sampling trips were made, on an approximately monthly basis. Each trip included collections in Chawia, Ngangao, and Vuria Forests, all located on Dabida Mountain (Figures 2 and 3). These three forests encompass the range of elevation of remaining indigenous wet forest on the Taita Hills, being ca. 1550-1630, 1730-1890, and 1960-2200 m above sea level, respectively. Additionally, forest and woodland on Kasigau, Mbololo and Sagalla Mountains were sampled on four, four, and three occasions, respectively, including a single collecting trip made to Sagalla and Mbololo Mountains in September of 2014. Other collections were made in Fururu Forest and in Ronge Nyika, the latter at lower altitudes in degraded shrubland. Data from these collections can be used as baseline information on the presence of fruit species and their insect guilds at various altitudes and times of the year. Altitudinal and temporal shifts in the appearance of the fruits and associated insects can be used to provide partial validation of predictive models based on hypothetical scenarios of anticipated climate changes.

The long rains (March-June 2012) were poor during the period of our work, with drought conditions experienced on the western, rain-shadow slopes of the mountains. This probably limited the number of plant species that bore fruit. Nonetheless, we were able to collect 345 fruit samples representing 155 plant species and 64 plant families. Data from these collections were supplemented with those from 85 other fruit samples collected in Taita Hills from 2001-2002 during an earlier, country-wide project. Nearly all of these latter samples were collected in Mbololo and Ngangao Forests. Taken together, the total number of samples was 430 representing 168 plant species. No additional plant families were sampled. The distribution of samples among the major sampling sites is shown in Table 1.

Fruits and leaves of sampled plants were photographed in the field using a Canon Power Shot SX10IS camera. For all plant images, a ball point pen was included in the field of view to provide scale. The diameter of the barrel of the pen is ca. 10 mm. In general, entire plant (habitus) photographs were not taken because of the difficulty of finding specimens that were isolated enough to avoid the inclusion of confusing background vegetation. Additionally, on those occasions when a plant was sufficiently isolated, controlling contrast was usually a problem. Fruit samples were transported to the laboratory at *icip*e, Nairobi and held for 4-5 weeks, except during the cold months of July and August when they were held for two months. Emerged insects were held for one to two days at which time they were either placed in 95% ethanol or killed by freezing and mounted on pins or glued to cardboard points.

Mounted insects were photographed in the laboratory with a Canon EOS 60D digital camera and a Canon 100mm macro lens. When higher magnification was necessary Raynox Microexplorer supplemental lenses were used. Illumination was supplied by a Canon Twin-lite MT-24EX flash. Insect images are not to scale. As a general rule, parasitoid wasps are small, between ca. 1.5-8mm in length, the larger specimens invariably being Ichneumonidae or Braconidae. The largest reared insects were Lycaenidae butterflies, with a ca. 30 mm wingspan.

Results and discussion

Of all insects that feed on fruits, Tephritidae (true fruit flies) are the most notorious. In sub-Saharan Africa the most important genera are *Ceratitus*, *Dacus*, and *Bactrocera*. Several *Dacus* species and *Bactrocera cucurbitae* are pests of cucurbits and *Ceratitus* species attack cultivated Rutaceae (citrus), Rosaceae (plums, cherries, etc.), Anacardiaceae (mango) and Annonaceae (custard apple and various other *Annona* species). Perhaps most dangerous is the newly invasive species *Bactrocera dorsalis*, extremely polyphagous and already established as the most serious pest of mango.

In our survey of the Taita Hills we reared *B. dorsalis* from *Diospyros zombensis* growing at low altitude in riverine forest next to farmland. However, it was not reared from fruits collected in or around montane forest. In contrast, we reared *Ceratitus* species nov., a sibling species of the low-elevation pest *Ceratitus rosa*, from two exotic fruits growing at high elevation (>1700m) in the Taitas; *Dovyalis caffra*, widely used as a living fence and *Eriobotrya japonica*, an ornamental tree whose fruits are often highly infested with other *Ceratitus* species.

Taita Hills and the other Eastern Arc Mountain blocks are known for the high rate of endemism among their plant and animal species, and Taita fruits have added to the list of previously undescribed species from this biodiversity hotspot. Four (possibly five) undescribed species of Tephritidae were reared during the survey, attacking plants of the Dracaenaceae, Meliaceae, Putranjivaceae, Rosaceae, Rubiaceae and Salicaceae. Three new species of seed chalcids (Torymidae: Megastigminae) were reared from the seeds of Anacardiaceae and Malvaceae, and new Lepidoptera species attacked Myrsinaceae, Rubiaceae and Rutaceae. The data on undescribed species discovered during our survey are summarized in Table 2. Additionally, the apparent instance of gall formation caused by a braconid wasp in fruits of *Rubus apetalus* is of considerable interest. Gall-forming Braconidae have only recently been discovered in the neotropics and have not yet been reported in the Afrotropical region.

Forests and the organisms they contain provide substantial cultural and recreational value for communities. For the generalist interested in natural history, knowledge of the fruits will add to the pleasures of the outdoor life. Plants are easier to identify when flowering or fruiting, and while flowering specimens are the foundation of plant taxonomy, fruits are particularly valuable for identification of plants in the field, being available when flowers are not, and usually for a longer period of time. And fruits are often as distinctive as their floral predecessors. These two features of plants complement each other, greatly expanding the season when plants may be readily identified in the field.

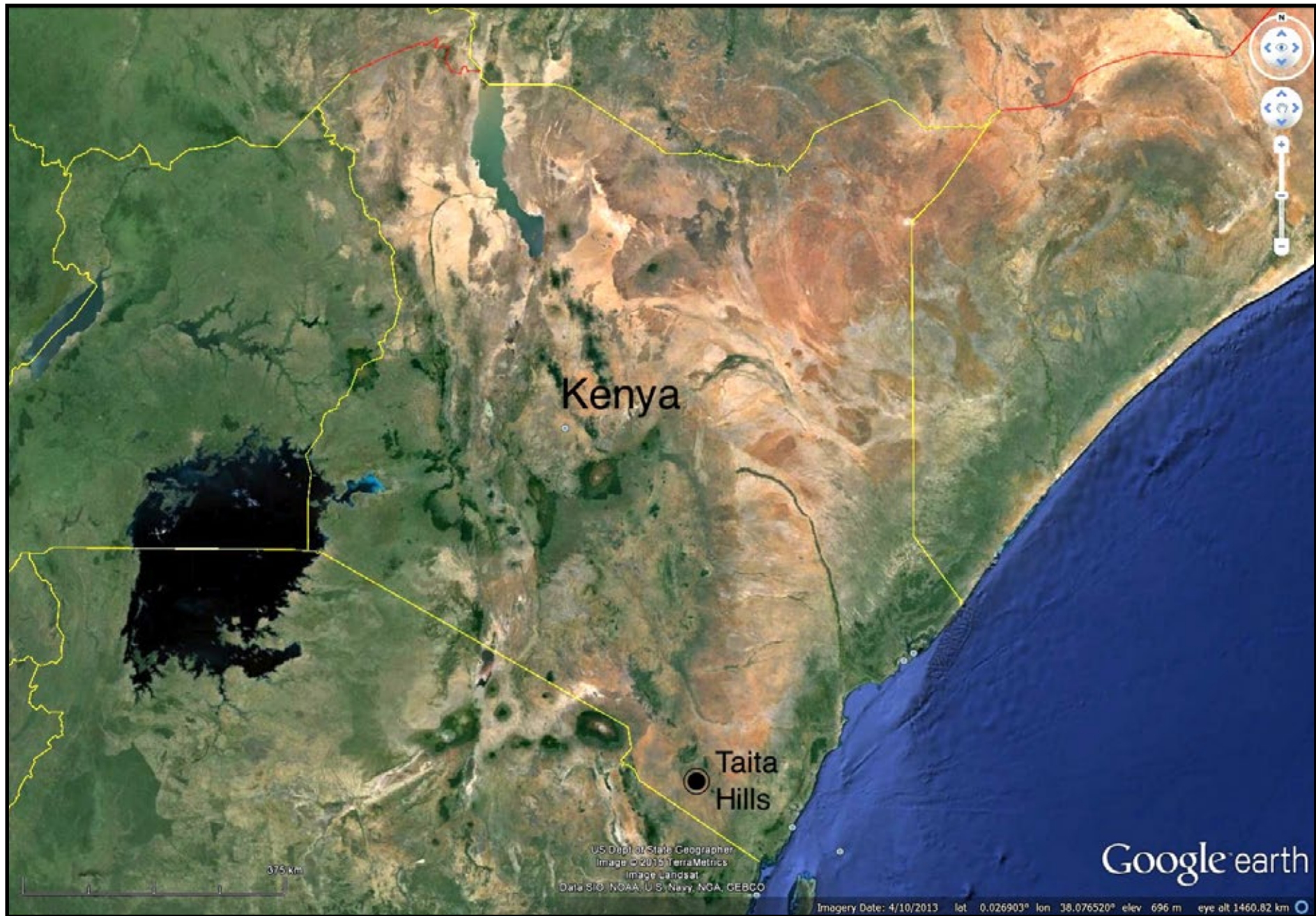


Figure 1. Map showing location of Taita Hills in the southeast of Kenya.

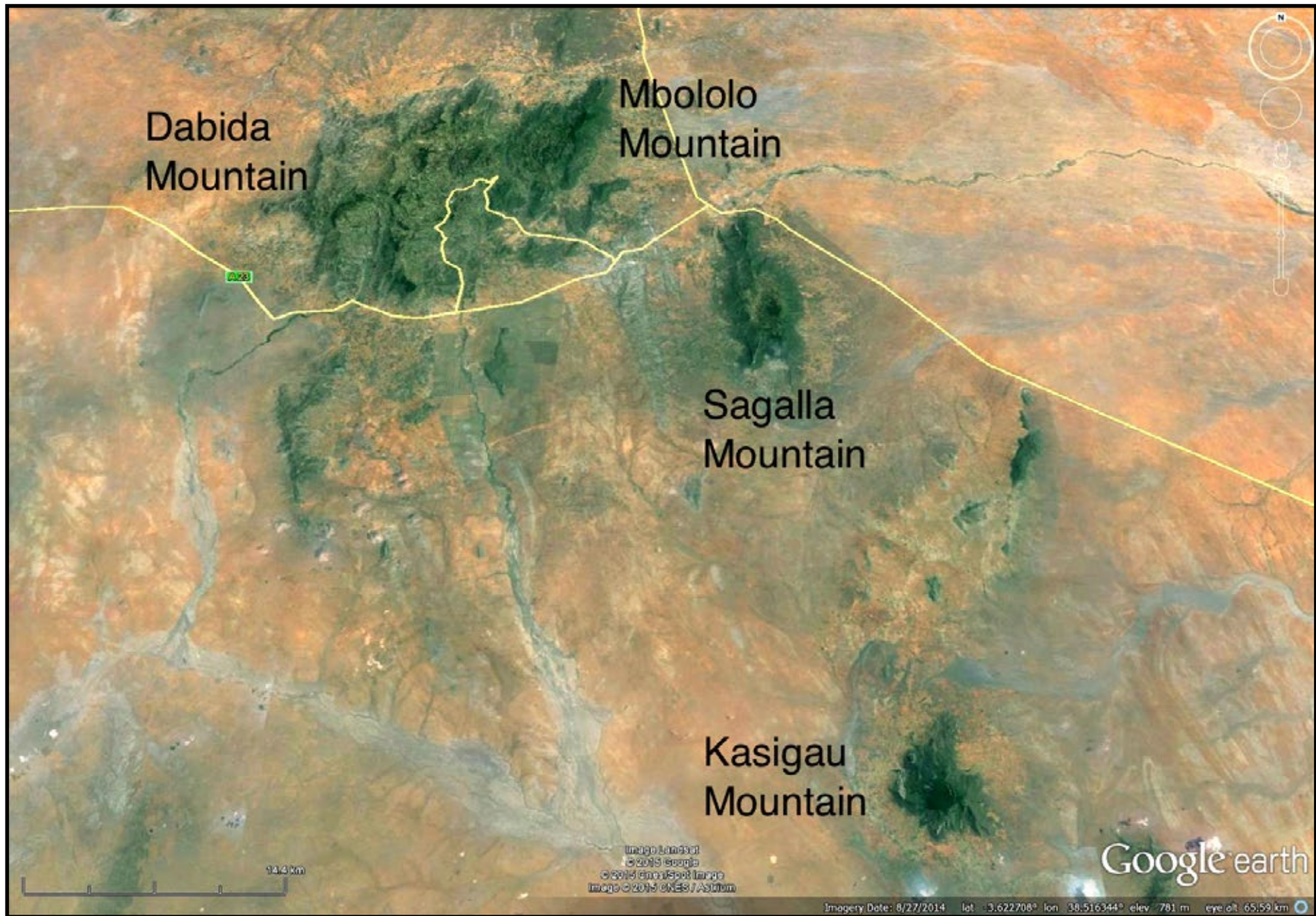


Figure 2. Map of the Taita Hills with Kasigau Mountain to the southeast.

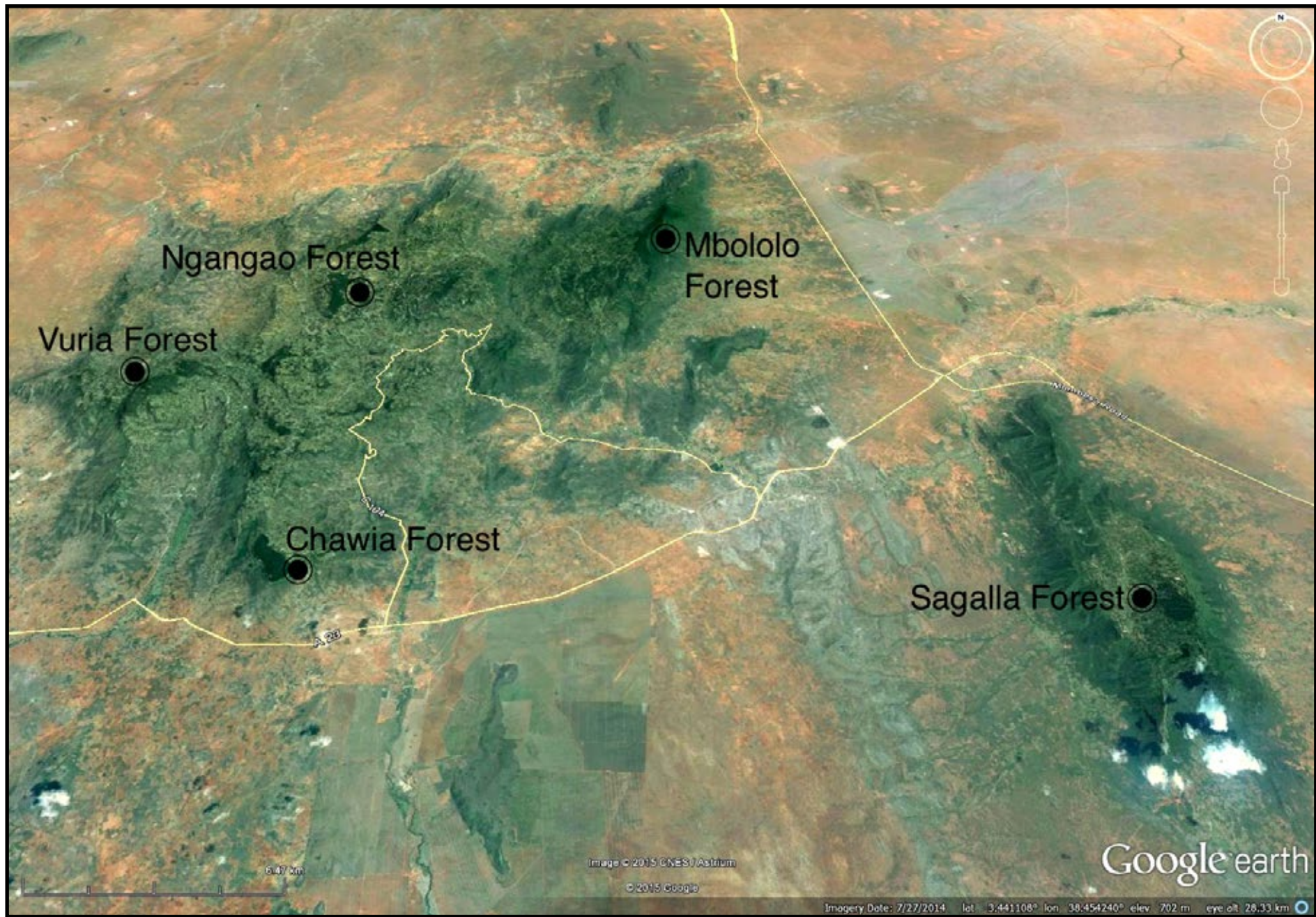


Figure 3. Map of major forest sampling sites in the Taita Hills.

Table 1. Major collection sites of wild fruits in the Taita Hills¹

Mountain	Location(s)	Range of elevation (m) of fruit collections ²	No. of fruit samples	No. of plant families sampled	No. of plant species sampled
Dabida	Chawia Forest	1550-1650	37	14	22
Dabida	Fururu Forest	1690-1750	16	8	10
Dabida	Mid-altitude riverine forest below Bura Bluff	1010-1040	19	7	7
Dabida	Ngangao Forest	1740-1890	126	31	63
Dabida	Vuria Forest	1950-2200	72	23	30
Kasigau	Forest, woodland, and shrubland	590-1290	33	16	26
Mbololo	Forest, woodland, and shrubland	1060-1770	47	26	36
Mbololo	Ronge-Nyika, disturbed dry forest and shrubland	930-950	27	18	23
Sagalla	Wet forest, woodland and shrubland	1090-1520	19	12	15

¹includes 68 fruit samples from Ngangao Forest and 10 from Mbololo Forest collected in 2002 during a previous project.

²Rounded to nearest 10 metres

Table 2. Undescribed insects reared from fruits of the Taita Hills

Insect order	Insect family	Insect species	Host plant family	Host plant species	Page no.
Diptera	Tephritidae	<i>Carpophthoromyia</i> probably sp. nov.	Putranjivaceae	<i>Drypetes gerrardii</i>	278
		<i>Ceratitis</i> sp. nov. nr. <i>whartoni</i>	Meliaceae	<i>Lepidotrichilia volkensisii</i>	206
		<i>Ceratitis</i> sp. nov. nr. <i>rosa</i>	Rosaceae, Salicaceae	<i>Eriobotrya japonica</i> , <i>Dovyalis caffra</i>	295
		<i>Taomyia</i> probably sp. nov.	Dracaenaceae	<i>Dracaena laxissima</i> , <i>D. steudneri</i>	152
		<i>Trirhithrum</i> probably sp. nov.	Rubiaceae	<i>Psychotria capensis</i> subsp. <i>riparia</i>	336
Hymenoptera	Eulophidae	<i>Entedon</i> sp. nov.	Malvaceae	<i>Grewia tephrodermis</i>	199
	Torymidae	<i>Megastigmus smithi</i> sp. nov.	Anacardiaceae	<i>Lansea schimperii</i>	21
		<i>Megastigmus laventhali</i> sp. nov.	Anacardiaceae	<i>Lansea schweinfurthii</i>	24
		<i>Megastigmus copelandi</i> sp. nov.	Malvaceae	<i>Grewia tephrodermis</i>	200
Lepidoptera	Tortricidae	probably <i>Cydia</i> sp. nr. <i>connara</i>	Myrsinaceae	<i>Rapanea melanophloeos</i>	236
		<i>Cosmetra</i> probably sp. nov.	Rubiaceae	<i>Vangueria volkensisii</i>	359
	Elachistidae	<i>Blastobasis</i> sp. nov.	Rutaceae	<i>Vepris fadenii</i>	365

Acanthaceae

1. *Crossandra tridentata* Lindau



Plant type

Erect herb, unarmed, latex absent

Wet forest undergrowth

Taita Hills collection site(s): Mbololo, Ngangao Forests

Month(s) collected: APR, JUL, AUG

Leaf

Arrangement: opposite

Type: simple

Description: Leaves elliptic, base attenuate, apex acute, margin entire.

Fruit

Inflorescence: spike

Fruit: capsule

Reared insects

Coleoptera, Hymenoptera, Lepidoptera

Crossandra tridentata Lindau (cont.)



Curculionidae sp.



Tortricidae, *Cosmetra taitana*

Crossandra tridentata Lindau (cont.)



Eupelmidae sp.



Eurytomidae sp. 1

Crossandra tridentata Lindau (cont.)



Eurytomidae sp. 2, female



Eurytomidae sp. 2, male

2. *Justicia betonica* L.



Plant type

Erect, or trailing, herb, unarmed, latex absent
Wet forest undergrowth
Taita Hills collection site(s): Ngangao and Sagalla Forests
Month(s) collected: MAR, MAY

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic, base cuneate, apex acute-acuminate, margin entire

Fruit

Inflorescence: raceme
Fruit: capsule, 10-15mm

Reared insects

Hymenoptera, Lepidoptera, non-tephritid Diptera

Justicia betonica L. (cont.)



Tortricidae, Cosmetra taitana



Lauxaniidae sp.

Justicia betonica L. (cont.)



Braconidae, Microgastrinae sp.



Ichneumonidae sp.

Justicia betonica L. (cont.)



Braconidae, Agathidinae, probably Bassus sp.

3. *Mimulopsis cf. alpina* Chiov.



Plant type

Herbaceous shrub, unarmed, latex absent.
Forest undergrowth
Taita Hills collection site(s): Vuria Forest
Month(s) collected: JAN

Leaf

Arrangement: opposite
Type: simple
Description: Leaves ovate, base rounded, apex acute to acuminate, margin round-toothed

Fruit

Inflorescence: raceme
Fruit: capsule

Reared insects

Diptera: Tephritidae,

***Mimulopsis cf. alpina* Chiov. (cont.)**



Tephritidae, Pseudafreutreta sp., male

Achariaceae

1. *Dasylepis integra* Warb.



Plant type and distribution

Shrub or tree, unarmed, latex absent.

Moist forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: JAN, FEB, APR

Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: alternate

Type: simple

Description: elliptic, base cuneate to rounded, apex shortly acuminate, margin entire or serrate-dentate

Fruit

Inflorescence: raceme

Fruit: pale purple/green capsule, subglobose, 15-20mm

Reared insects

Hymenoptera, non-tephritid Diptera

Dasylepis integra Warb.(cont.)



Dasylepis integra, closeup of flowers



Heleomyzidae, *Suillia* sp.

Dasylepis integra Warb.(cont.)



Pteromalidae sp.

Amaryllidaceae

1. *Scadoxus multiflorus* (Martyn) Raf.



Plant type and distribution

Herb, unarmed, latex absent

Moist forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: JUL

Leaf

Arrangement: clumped

Type: simple

Description: elliptic with sheathing base, margin entire

Fruit

Inflorescence: spherical umbel

Fruit: orange/yellow berry, globose, ca. 10-15mm

Reared insects

none

Anacardiaceae

1. *Lannea schimperi* (A.Rich.) Engl.



Habitus with fruit clusters



Fruit clusters

Plant type and distribution

Tree, unarmed, latex absent

Wooded grassland, often on rocky sites

Taita Hills collection site(s): base of Sagalla Mountain.

Month(s) collected: SEP

Leaf

Arrangement: alternate

Type: compound: imparipinnate

Description: Leaflets 5-11, elliptic or ovate, rusty-tomentose beneath, margin entire

Fruit

Inflorescence: "spike", flowers and fruit precocious

Fruit: purple or pinkish drupe, obliquely ovoid, 8-14mm

Reared insects

Hymenoptera

Lannea schimperi (A.Rich.) Engl. (cont.)



Young leaves and fruits



Young leaf and fruits

***Lannea schimperi* (A.Rich.) Engl. (cont.)**



Torymidae, Megastigminae, Megastigmus smithi sp. nov.

2. *Lannea schweinfurthii* (Engl.) Engl.



Plant type and distribution

Shrub or tree, unarmed, latex absent

Dry forest, woodland, grassland

Taita Hills collection site(s): farm in Mwatate area and base of Kasigau Mountain.

Month(s) collected: FEB, MAR

Leaf

Arrangement: alternate

Type: compound: imparipinnate

Description: Leaflets usually 3-7, elliptic or ovate, margin entire

Fruit

Inflorescence: spike

Fruit: purple or pinkish drupe, ellipsoid, 8-12mm

Reared insects

Coleoptera, Hymenoptera, Lepidoptera, non-tephritid Diptera

Lanea schweinfurthii (Engl.) Engl. (cont.)



Crambidae, Odoniinae, Autocharis phaeospilalis



Curculionidae sp.

Lanea schweinfurthii (Engl.) Engl. (cont.)



Cecidomyiidae sp.



Torymidae, *Megastigminae*, *Megastigmus laventhali* sp. nov., female

Lannea schweinfurthii (Engl.) Engl. (cont.)



Eupelmidae sp., female



Eupelmidae sp., male

Lannea schweinfurthii (Engl.) Engl. (cont.)



Torymidae sp., female



Torymidae sp., male

3. *Rhus natalensis* C.Krauss



Plant type and distribution

Shrub or small tree, unarmed, latex absent
Dry forest margins, woodland, grassland;
Taita Hills collection site(s) Ronge Nyika and base of Kasigau
Mountain
Months collected: JAN, OCT

Leaf

Arrangement: alternate
Type: compound: trifoliolate
Description: Leaflets elliptic or obovate, base cuneate, apex obtuse to emarginate, margin entire

Fruit

Inflorescence: panicle
Fruit: orange-purple drupe, ellipsoid, 5-6mm

Reared insects

Hymenoptera, Lepidoptera

Rhus natalensis C.Krauss (cont.)



Tortricidae, Eucosmocydia monitrix



Braconidae, Cheloninae, Ascogaster or Chelonus sp.

Rhus natalensis C.Krauss (cont.)



Eulophidae sp., male



Eulophidae sp., female

Rhus natalensis C.Krauss (cont.)



Torymidae, Megastigminae, Megastigmus transvaalensis, small male



Torymidae, Megastigminae, Megastigmus transvaalensis, female

Rhus natalensis C.Krauss (cont.)



Eupelmidae sp.



Bethylidae, Goniosus sp.

***Rhus natalensis* C.Krauss (cont.)**



Eurytomidae sp.

Annonaceae

1. *Uvaria scheffleri* Diels



Plant type and distribution

Liana, occasionally tree, unarmed, latex absent
Dry forest, woodland, bushland
Taita Hills collection site(s): Ronge Nyika
Month(s) collected: JAN

Leaf

Arrangement: alternate
Type: simple
Description: Leaves elliptic, base obtuse or rounded, apex acute to acuminate, margin entire

Fruit

Inflorescence: solitary
Fruit: orange/yellow monocarp, round to cylindrical, 18-32mm

Reared insects

Hymenoptera, Lepidoptera

Uvaria scheffleri Diels (cont.)



Pyralidae, Phycitinae, Spatulipalpia sp. female



Pyralidae, Phycitinae, Spatulipalpia sp. male

Uvaria scheffleri Diels (cont.)



Tortricidae, Thaumatotibia leucotreta female



Tortricidae, Thaumatotibia leucotreta male

Uvaria scheffleri Diels (cont.)



Braconidae, Microgastrinae sp.

Aphloiaceae

1. *Aphloia theiformis* (Vahl) Benn.



Plant type and distribution

Tree, unarmed, latex absent
Upland moist or dry forest margins, evergreen bushland, riverine
Taita Hills collection site(s): Ngangao Forest
Month(s) collected: DEC

Leaf

Arrangement: alternate
Type: simple
Description: leaves narrowly elliptic, base cuneate, apex obtuse, margin serrate

Fruit

Inflorescence: fascicle
Fruit: berry, white, ellipsoid or globose, 5-9mm

Reared insects

none

Apiaceae

1. *Afroligusticum linderi* (C.Norman) P.J.D.Winter



Plant type and distribution

Erect herb, unarmed, latex absent

Moist forest

Taita Hills collection site(s): edge of Vuria Forest

Month(s) collected: NOV

Leaf

Arrangement: alternate

Type: simple, divided (pinnately)

Description: leaf ovate in outline, sheathing base, broadly cuneate to subcordate, apex bluntly acute.

Fruit

Inflorescence: umbel

Fruit: capsule (?), green before drying, broadly ellipsoid, \pm flattened, longitudinally ribbed medially, winged, wings pale green-white, ca. 10mm

Reared insects

none

Арсунасеае

1. *Acokanthera oppositifolia* (Lam.) Codd



Plant type and distribution

Shrub or small tree, unarmed, latex present.
Dry and riverine forest, woodland
Taita Hills collection site(s): Ngangao Forest
Month(s) collected: MAR

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic, base cuneate or rounded, apex acute to obtuse, with spiny mucro, margin entire

Fruit

Inflorescence: Cyme
Fruit: red/purple berry, round to cylindrical, 18-32mm

Reared insects

Diptera: Tephritidae

***Acokanthera oppositifolia* (Lam.) Codd (cont.)**



Tephritidae, Ceratitis simi, female

2. *Ancylobotrys petersiana* (Klotzsch) Pierre



Plant type and distribution

Liana, unarmed, latex present

Dry forest margin, bushland

Taita Hills collection site(s): Base of Kasigau Mountain

Month(s) collected: MAR

Leaf

Arrangement: opposite

Type: simple

Description: Leaves elliptic, base cuneate or rounded, apex acute to obtuse, with spiny mucro, margin entire

Fruit

Inflorescence: panicle

Fruit: yellow berry, globose, 18-50mm

Reared insects

none

3. *Carissa tetramera* (Sacleux) Stapf



Plant type and distribution

Shrub or tree, spines present, latex present
Woodland or bushland
Taita Hills collection site(s): Kasigau Mountain
Month(s) collected: OCT

Leaf

Arrangement: opposite
Type: simple
Description: Leaves ovate to elliptic, base cuneate or rounded, apex acute to obtuse, margin entire or slightly crenate

Fruit

Inflorescence: cyme
Fruit: purple berry, ellipsoid/globose, 10-13mm

Reared insects

none

4. *Cryptolepis cf. ibayana* L.Joubert & Venter



Plant type and distribution

Climber, unarmed, latex present

Bushland

Taita Hills collection site(s): Kasigau Mountain

Month(s) collected: OCT

Leaf

Arrangement: opposite

Type: simple

Description: Leaves ovate to elliptic, base obtuse, apex acute, margin entire

Fruit

Inflorescence: umbel

Fruit: green follicle, ovoid, elongate, pointed, >50-70mm

Reared insects

none

5. *Landolphia buchananii* (Hallier f.) Stapf



Plant type and distribution

Climber, unarmed, latex present

Forest and riverine forest

Taita Hills collection site(s): Chawia Forest

Month(s) collected: DEC

Leaf

Arrangement: opposite

Type: simple

Description: Leaves (ob)ovate to elliptic, base cuneate or rounded, apex bluntly acuminate, margin entire

Fruit

Inflorescence: cyme

Fruit: green berry with light spots, globose, 40-100mm

Reared insects

none

6. *Pentarrhinum insipidum* E.Mey.



Plant type and distribution

Climber, unarmed, latex present

Dry areas, and edges of dry or moist evergreen forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: DEC

Leaf

Arrangement: opposite

Type: simple

Description: leaves heart-shaped (broadly ovate), base cordate, apex acute, margin entire

Fruit

Inflorescence: raceme

Fruit: follicle (i.e. pod), yellow-green, \pm ellipsoid, with large soft wart-like protuberances or spines, to ca. 90mm

Reared insects

none

7. *Rauvolfia mannii* Stapf



Plant type and distribution

Shrub or small tree, unarmed, latex present

Moist forest understory

Taita Hills collection site(s): Chawia, Fururu and Sagalla forests

Month(s) collected: JAN, MAY, NOV, DEC

Leaf

Arrangement: opposite

Type: simple

Description: Leaves obovate to elliptic, base cuneate, apex long-acuminate, margin entire

Fruit

Inflorescence: umbel

Fruit: red/purple berry, ellipsoid or heart-shaped, 8-11mm

Reared insects

none

8. *Saba comorensis* (Bojer) Pichon



Plant type and distribution

Liana, unarmed, latex present.
Riverine forest, forest edge
Taita Hills collection site(s): Mwatate area riverine forest
Month(s) collected: APR

Leaf

Arrangement: opposite
Type: simple
Description: Leaves ovate to elliptic, base rounded or sub-cordate, apex obtuse or rounded, margin entire

Fruit

Inflorescence: panicle
Fruit: yellow berry, subglobose, 25-60mm

Reared insects

none

9. *Secamone* sp.



Plant type and distribution

Climber, unarmed, latex present

Bushland

Taita Hills collection site(s): base of Kasigau Mountain

Month(s) collected: MAR

Leaf

Arrangement: opposite

Type: simple

Description: Leaves ovate to elliptic, base obtuse to cuneate, apex obtuse, margin entire

Fruit

Inflorescence: raceme

Fruit: green follicle, elongate, narrow, tapering cylinder, 60-80mm

Reared insects

none

10. *Tabernaemontana stapfiana* Britten



Plant type and distribution

Tree, unarmed, latex present.

Moist forest

Taita Hills collection site(s): Chawia, Fururu, Mbololo and Ngangao forests.

Month(s) collected: JAN, MAR, APR, MAY, JUL, OCT, DEC

Leaf

Arrangement: opposite

Type: simple

Description: Leaves elliptic to obovate, base cuneate, apex rounded to short acuminate, margin entire

Fruit

Inflorescence: corymb

Fruit: greenish/brown berry, subglobose, 100-200mm

Reared insects

Coleoptera, non-tephritid Diptera

Tabernaemontana stapfiana Britten (Cont.)



Nitidulidae sp.



Anisopodidae sp.

***Tabernaemontana stapfiana* Britten (Cont.)**



Syrphidae, Rhingia sp.

Aquifoliaceae

1. *Ilex mitis* (L.) Radlk.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Moist, dry or riverine forest
Taita Hills collection site(s): Vuria forest.
Month(s) collected: NOV

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic to obovate, base cuneate or obtuse, apex acute, rounded or apiculate, margin entire or with teeth

Fruit

Inflorescence: cyme
Fruit: yellow to red drupe, globose, 4-7mm

Reared insects

none

Araceae

1. *Culcasia falcifolia* Engl.



Plant type and distribution

Climber, unarmed, latex absent

Moist forest

Taita Hills collection site(s): Chawia, Fururu, Mbololo and Ngangao forests

Month(s) collected: JAN, MAR, JUL, AUG, OCT, NOV, DEC

Leaf

Arrangement: alternate

Type: simple

Description: Leaves ovate, elliptic or lanceolate, base rounded, apex acute, margin entire

Fruit

Inflorescence: spike

Fruit: red berry, ellipsoid to obovoid, 8-12mm

Reared insects

Hymenoptera, Diptera: Tephritidae, non-tephritid Diptera

Culcasia falcifolia Engl. (cont.)



Tephritidae, Trirhithrum culcasiae, female



Tephritidae, Trirhithrum culcasiae, male

Culcasia falcifolia Engl. (cont.)



Anisopodidae sp.



Braconidae, Opiinae, Opius sp., female

***Culcasia falcifolia* Engl. (cont.)**



Pteromalidae sp.

Araliaceae

1. *Cussonia spicata* Thunb.



Cussonia spicata, leaves



Cussonia spicata, ripe fruits

Plant type and distribution

Tree, unarmed, latex absent

Dry upland and moist forest, riverine forest

Taita Hills collection site(s): Ngangao forest

Month(s) collected: OCT

Leaf

Arrangement: alternate

Type: digitately compound

Description: Leaflets 6-12, pinnatifid to partially pinnate, base cuneate or attenuate, apex acuminate, margin toothed

Fruit

Inflorescence: spike

Fruit: pink/purple berry (drupe?), obovoid to obconical, 10-12mm

Reared insects

Coleoptera, Diptera: Tephritidae, non-tephritid Diptera, Hymenoptera

Cussonia spicata Thunb. (cont.)



Cussonia spicata, Unripe fruits



Scolytidae sp., probably boring in stem

Cussonia spicata Thunb. (cont.)



Tephritidae, Ocnerioxa cf delineata, probably attacking stem



Milichiidae, Desmometopa sp.

Cussonia spicata Thunb. (cont.)



Eupelmidae sp., male



Eupelmidae sp., female

***Cussonia spicata* Thunb. (cont.)**



Eurytomidae sp., male

2. *Polyscias fulva* (Hiern) Harms



Plant type and distribution

Tree, unarmed, latex absent
Wet upland or riverine forest
Taita Hills collection site(s): Ngangao forest
Month(s) collected: AUG

Leaf

Arrangement: alternate
Type: compound, pinnate, usually imparipinnate
Description: Leaflets usually 6-7 pairs, ovate to elliptic, base cuneate, rounded or subcordate, apex acuminate or apiculate, margin entire

Fruit

Inflorescence: panicle
Fruit: purple berry (drupe?), (ob)ovoid to globose, 3-6mm

Reared insects

none

3. *Polyscias stuhlmannii* Harms



Plant type and distribution

Tree, unarmed, latex absent
Wet, upland mist forest
Taita Hills collection site(s): Mbololo and Ngangao forests
Month(s) collected: OCT
Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: alternate
Type: compound, imparipinnate
Description: Leaflets usually 4-5 pairs, (ob)ovate to elliptic, base cuneate, apex rounded or emarginate, margin entire

Fruit

Inflorescence: umbel
Fruit: purple berry (drupe?), urceolate, sulcate, 7-13mm

Reared insects

none

4. *Schefflera myriantha* (Baker) Drake



Plant type and distribution

Tree or liana, unarmed, latex absent
Wet upland forest
Taita Hills collection site(s): Vuria forest
Month(s) collected: NOV

Leaf

Arrangement: alternate
Type: compound, digitate
Description: Leaflets 4-8, obovate to nearly round, base rounded or subcordate, apex acuminate, margin entire

Fruit

Inflorescence: panicle
Fruit: purple berry (drupe?), urceolate or subglobose, sulcate, to ca. 4-8mm

Reared insects

Lepidoptera

***Schefflera myriantha* (Baker) Drake (cont.)**



Microlepidoptera sp.

Arecaceae

1. *Phoenix reclinata* Jacq.



Plant type and distribution

Tree, spines at base of leaves, latex absent
Open, rocky hillsides, disturbed forest
Taita Hills collection site(s): Fururu and Ngangao Forests
Month(s) collected: OCT, DEC

Leaf

Arrangement: spirally arranged
Type: compound, pinnate
Description: Leaves to 3m long, with many folded leaflets

Fruit

Inflorescence: axillary
Fruit: nut, yellow, orange, red, ellipsoid, 13-17mm

Reared insects

Hymenoptera

Phoenix reclinata Jacq. (cont.)



Braconidae, Alysiniinae

Asparagaceae

1. *Asparagus asparagoides* (L.) Druce



Plant type and distribution

Straggling herb or climber, unarmed, latex absent
Upland forest
Taita Hills collection site(s): Vuria forest
Month(s) collected: FEB

Leaf

Arrangement: Cladodes (leaves) alternate
Type: simple
Description: ovate to lanceolate with rounded base and pointed apex, margin entire

Fruit

Inflorescence: flowers solitary or paired
Fruit: red berry, globose, ca. 5-9mm

Reared insects

none

2. *Asparagus cf. natalensis* (Baker) J.-P. Lebrun & Stork



Plant type and distribution

Straggling herb or climber, with spines to ca. 8 mm, latex absent
Upland forest
Taita Hills collection site(s): Ngangao forest
Month(s) collected: FEB

Leaf

Arrangement: Cladodes (leaves) alternate
Type: simple
Description: \pm linear, margin entire

Fruit

Inflorescence: raceme
Fruit: red berry, globose to ca. 6-9mm

Reared insects

none

3. *Asparagus flagellaris* (Kunth) Baker



Plant type and distribution

Straggling or erect shrub, with strong spines, latex absent. Dry bushland and rocky, upland areas, Taita Hills collection site(s): Mbololo
Month(s) collected: MAR

Leaf

Arrangement: Cladodes (leaves) arranged in clusters, linear and longer than distance between internodes.
Type: simple
Description: linear, margin entire

Fruit

Inflorescence: single, or in pairs
Fruit: orange berry, globose, ca. 8-9mm

Reared insects

none

Asteraceae

1. *Bidens* sp. cf. *hildebrandtii* O.Hoffm.



Plant type and distribution

Woody herb or shrub, unarmed, latex absent
Steep rocky slopes
Taita Hills collection site(s): Vuria forest
Month(s) collected: OCT

Leaf

Arrangement: opposite
Type: simple
Description: leaves bi-pinnatisect

Fruit

Inflorescence: corymb
Fruit: dry achene

Reared insects

Tephritidae (reared from flower head)

***Bidens sp. cf. hildebrandtii* O.Hoffm. (cont.)**



Campiglossa siphonina female



Campiglossa siphonina male

Balanitaceae

1. *Balanites aegyptiaca* (L.) Delile



Plant type and distribution

Tree, spines to 8cm, latex absent

Dry bushland/woodland

Taita Hills collection site(s): Mwatate-Kasigau road

Month(s) collected: OCT

Leaf

Arrangement: alternate

Type: compound, bifoliolate

Description: leaflets elliptic to obovate, base cuneate, apex obtuse to rounded, margin entire

Fruit

Inflorescence: few-flowered fascicle

Fruit: yellow to red drupe, ellipsoid, 25-45mm

Reared insects

Hymenoptera, Lepidoptera

Balanites aegyptiaca (L.) Delile (cont.)



Noctuidae, Eublemma robertsi, female



Noctuidae, Eublemma robertsi

***Balanites aegyptiaca* (L.) Delile (cont.)**



Braconidae, Braconinae, Bracon sp., female



Braconidae, Braconinae, Bracon sp., male

Boraginaceae

1. *Cordia quercifolia* Klotzsch



Plant type and distribution

Shrub or tree, unarmed, latex absent

Dry bushland

Taita Hills collection site(s): Near base of Kasigau Mountain

Month(s) collected: OCT

Leaf

Arrangement: opposite

Type: simple

Description: oblong to elliptic, base cuneate or rounded, apex rounded to slightly emarginate, margin entire or slightly crenate.

Fruit

Inflorescence: cyme

Fruit: yellow to orange drupe, ovoid, apiculate, 10-15mm

Reared insects

Hymenoptera, Lepidoptera

Cordia quercifolia Klotzsch (cont.)



Pyralidae, Phycitinae sp.



Tortricidae sp

***Cordia quercifolia* Klotzsch (cont.)**



Torymidae sp., male

Capparaceae

1. *Boscia coriacea* Pax



Plant type and distribution

Shrub or tree, unarmed, latex absent

Dry bushland

Taita Hills collection site(s): base of Kasigau Mountain

Month(s) collected: APR

Leaf

Arrangement: alternate

Type: simple

Description: elliptic, base cuneate, apex spiny-mucronate, margin entire

Fruit

Inflorescence: raceme

Fruit: yellow-brown, globose, 10-20mm

Reared insects

Diptera: Tephritidae, Hymenoptera

Boscia coriacea Pax (cont.)



Tephritidae, Capparimyia aenigma



Braconidae, Braconinae, Bracon sp., female

2. *Maerua angolensis* DC.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Deciduous bushland, woodland, and wooded grassland
Taita Hills collection site(s): Mwatate area, on farm
Month(s) collected: MAY

Leaf

Arrangement: alternate
Type: simple
Description: ovate, broadly elliptic, or nearly round, base rounded, subcordate or cuneate, apex obtuse, or emarginate or mucronate, margin entire

Fruit

Inflorescence: raceme
Fruit: white to pale yellow-green, cylindrical, torulose, 60-200mm

Reared insects

Diptera: Tephritidae, Hymenoptera

Maerua angolensis DC. (cont.)



Tephritidae, Capparimyia aenigma



Tephritidae, Capparimyia melanaspis

Maerua angolensis DC. (cont.)



Braconidae sp., Braconinae, Bracon sp., female



Braconidae sp., Braconinae, Bracon sp., male

Maerua angolensis DC. (cont.)



Braconidae, Opiinae, Psyttalia sp., female



Eupelmidae sp.

Maerua angolensis DC. (cont.)



Eurytomidae sp., female



Pteromalidae sp.

3. *Maerua kirkii* (Oliv.) F.White



Plant type and distribution

Shrub or tree, unarmed, latex absent

Deciduous bush or woodland

Taita Hills collection site(s): base of Kasigau Mountain

Month(s) collected: APR

Leaf

Arrangement: alternate

Type: simple

Description: stiff and brittle, slightly obovate, base obtuse or subcordate, apex acute, rounded, or emarginate, margin entire or with sharp or rounded teeth

Fruit

Inflorescence: corymb

Fruit: yellow to orange, warty, rounded with pointed apex, 20-35mm

Reared insects

Hymenoptera, Lepidoptera

Maerua kirkii (Oliv.) F.White (cont.)



Crambidae, Cybalomiinae, Thyridophora furia



Tortricidae, Selania exornata

***Maerua kirkii* (Oliv.) F.White (cont.)**



Braconidae, Cheloninae, Ascogaster or Chelonus sp.

Celastraceae

1. *Gymnosporia senegalensis* (Lam.) Loes.



Plant type and distribution

Shrub or tree, spiny or unarmed, latex absent
Wooded or bushed grassland
Taita Hills collection site(s): edge of Vuria forest
Month(s) collected: AUG

Leaf

Arrangement: alternate
Type: simple
Description: elliptic or obovate, base cuneate, apex obtuse or rounded, margin serrulate or entire

Fruit

Inflorescence: cyme
Fruit: yellow to red, elliptic, globose or obovoid, 4-8mm

Reared insects

Hymenoptera, Lepidoptera

Gymnosporia senegalensis (Lam.) Loes. (cont.)



Yponomeutidae, Yponomeuta strigillata



Eulophidae, Tetrastichinae sp.

***Gymnosporia senegalensis* (Lam.) Loes. (cont.)**



Ichneumonidae sp

2. *Mystroxylon aethiopicum* (Thunb.) Loes.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Dry forest, semi-evergreen bushland/thickets
Taita Hills collection site(s): Near Vuria town, Ronge Juu
Month(s) collected: JUL, NOV

Leaf

Arrangement: alternate
Type: simple
Description: elliptic or ovate, base cuneate to subcordate, apex obtuse or rounded, margin entire or crenulate

Fruit

Inflorescence: cyme
Fruit: pinkish to red, elliptic, globose or ovoid, 8-20mm

Reared insects

Diptera: Tephritidae, Hymenoptera, Lepidoptera

Mystroxydon aethiopicum (Thunb.) Loes. (cont.)



Tephritidae, Ceratitis capitata, female



Tephritidae, Ceratitis capitata, male

Mystroxylon aethiopicum (Thunb.) Loes. (cont.)



Pyralidae, Phycitinae, Ectomyelois ceratoniae



Braconidae, prob. Orgilinae, prob. Orgilus sp., female

3. *Salacia madagascariensis* (Lam.) DC.



Plant type and distribution

Shrub or liana, unarmed, latex absent
Moist or dry forest, woodland and evergreen bushland
Taita Hills collection site(s): Sagalla Mountain
Month(s) collected: SEP

Leaf

Arrangement: opposite
Type: simple
Description: elliptic, base cuneate, apex acuminate, margin serrulate

Fruit

Inflorescence: In fascicles
Fruit: orange, globose, 18-30 mm

Reared insects

none

***Salacia madagascariensis* (Lam.) DC.**



Clusiaceae

1. *Garcinia volkensii* Engl.



Plant type and distribution

Tree, unarmed, yellow latex present

Moist and evergreen forest

Taita Hills collection site(s): Mbololo and Ngangao Forests

Month(s) collected: OCT, NOV

Leaf

Arrangement: opposite

Type: simple

Description: elliptic or (ob)ovate, base cuneate or rounded, apex acute or apiculate, margin entire.

Fruit

Inflorescence: cyme

Fruit: orange or yellow, round or lobed, 10-30mm

Reared insects

Non-tephritid Diptera, Hymenoptera, Lepidoptera

Garcinia volkensis Engl. (cont.)



Cosmopterigidae, Stilbosis sp. nr. firma female



Cosmopterigidae, Stilbosis sp. nr. firma, specimen 2

Garcinia volkensis Engl. (cont.)



Tortricidae, Olethreutini, Episimus sp



Phoridae sp.

Garcinia volkensii Engl. (cont.)



Scatopsidae sp.



Ichneumonidae, Campopleginae sp., female

Connaraceae

1. *Agelaea pentagyna* (Lam.) Baill.



Plant type and distribution

Liana or scandent shrub, unarmed, latex absent
Moist or riverine forest
Taita Hills collection site(s): Chawia Forest and Ronge Juu riverine forest
Month(s) collected: JAN

Leaf

Arrangement: alternate
Type: compound, trifoliolate
Description: leaflets elliptic, base rounded or cuneate, apex acuminate, margin entire.

Fruit

Inflorescence: panicle
Fruit: orange-red, weakly obovoid, 14-20mm

Reared insects

Hymenoptera, Lepidoptera

Agelaea pentagyna (Lam.) Baill. (cont.)



Agelaea pentagyna, seed with aril



Tortricidae, *Paraccra mimesa* Razowski

Agelaea pentagyna (Lam.) Baill. (cont.)



Nolidae, Chloephorinae, Giaura leucotis (Hampson) male



Nolidae, Chloephorinae, Giaura leucotis (Hampson), female

Agelaea pentagyna (Lam.) Baill. (cont.)



Tortricidae, Thaumatotibia leucotreta, male



Tortricidae, Thaumatotibia leucotreta, female

Agelaea pentagyna (Lam.) Baill. (cont.)



Lycaenidae sp., female



Braconidae, *Braconinae*, *Bracon* sp. female

Convolvulaceae

1. *Ipomoea kituiensis* Vatke



Plant type and distribution

Scandent shrub, unarmed, latex absent
Dry bushland, woodland, wooded grassland
Taita Hills collection site(s): Ronge Nyika bushland
Month(s) collected: JUL

Leaf

Arrangement: alternate
Type: simple
Description: leaves broadly ovate to reniform, base cordate, apex acute or bilobed, margin entire.

Fruit

Inflorescence: cyme
Fruit: white capsule, ellipsoid, 15-20mm

Reared insects

none

Cucurbitaceae

1. *Coccinia mildbraedii* Harms



Plant type and distribution

Climber, unarmed, latex absent

Forest and forest edge

Taita Hills collection site(s): Chawia Forest

Month(s) collected: JUL

Leaf

Arrangement: alternate

Type: simple

Description: leaves broadly elliptic, lobed, base cordate, apex obtuse, margin with widely-spaced teeth.

Fruit

Inflorescence: solitary flowers

Fruit: red berry, cylindrical, 90-140 mm

Reared insects

none

Coccinia mildbraedii Harms (cont.)



Flower



Ripe fruit

2. *Cucumis dipsaceus* Spach



Plant type and distribution

Climber or creeper, unarmed, latex absent
Dry bushland
Taita Hills collection site(s): Ronge Nyika
Month(s) collected: MAY

Leaf

Arrangement: alternate
Type: simple
Description: round or kidney-shaped in outline, base cordate, apex obtuse, margin lobed or with sharp or rounded teeth

Fruit

Inflorescence: solitary flowers
Fruit: yellow berry, ellipsoid, densely soft-spiny, ca. 45-70 mm

Reared insects

Non-tephritid Diptera, Tephritidae

Cucumis dipsaceus Spach (cont.)



Tephritidae, Dacus punctatifrons, male



Tephritidae, Dacus bivittatus, male

Cucumis dipsaceus Spach (cont.)



Scatopsidae sp.

3. *Cucumis ficifolius* A.Rich.



Plant type and distribution

Climber, unarmed, latex absent

Dry bushland

Taita Hills collection site(s): Ronge Nyika

Month(s) collected: JUL

Leaf

Arrangement: alternate

Type: simple

Description: leaves round in outline, three-lobed, base cordate, apex obtuse, margin lobed or with sharp or rounded teeth

Fruit

Inflorescence: solitary flowers

Fruit: yellow berry, ellipsoid with small projections, ca. 45-60 mm

Reared insects

none

4. *Cucumis oreosyce* H.Schaef.



Plant type and distribution

Climber, unarmed, latex absent

Upland grassland

Taita Hills collection site(s): Vuria Forest edge

Month(s) collected: JAN, DEC

Leaf

Arrangement: alternate

Type: simple

Description: leaves 5-angled or weakly lobed, base cordate, apex acute, margin toothed

Fruit

Inflorescence: solitary flowers

Fruit: white or greenish-white berry, almost globose, with small bristly, hairy warts, 20-30mm

Reared insects

Diptera: Tephritidae, Hymenoptera, non-tephritid Diptera

***Cucumis oreosyce* H.Schaef. (cont.)**



Cucumis oreosyce H.Schaef. (cont.)



Tephritidae, Dacus telfairae



Tephritidae, Dacus telfairae, Dorsal aspect

Cucumis oreosyce H.Schaef. (cont.)



Drosophilidae sp.



Pteromalidae

Cucumis oreosyce H.Schaef. (cont.)



Braconidae, Opiinae, Fopius sp., female



Braconidae, Opiinae, Fopius sp., male

5. *Cucumis prophetarum* L.



Plant type and distribution

Climber or creeper, unarmed, latex absent
Dry bushland and woodland
Taita Hills collection site(s): Ronge Nyika
Month(s) collected: MAY

Leaf

Arrangement: alternate
Type: simple
Description: leaves nearly kidney- to lanceolate-shaped in outline, three-lobed or hardly lobed, base cordate, apex obtuse, margin lobed and faintly toothed

Fruit

Inflorescence: solitary flowers
Fruit: yellow berry, ellipsoid, densely covered in soft, bristle-tipped projections, ca. 45-60 mm

Reared insects

none

6. *Lagenaria sphaerica* (Sond.) Naudin



Plant type and distribution

Climber, unarmed, latex absent

Riverine forest

Taita Hills collection site(s): Mwatate area, riverine forest

Month(s) collected: FEB, MAY

Leaf

Arrangement: alternate

Type: simple

Description: leaves broadly ovate in outline, lobed, base cordate, apex obtuse, margin lobed

Fruit

Inflorescence: solitary flowers

Fruit: green, blotchy berry, globose, extremely hard, ca. 75-120mm

Reared insects

non-tephritid Diptera, Diptera: Tephritidae

Lagenaria sphaerica (Sond.) Naudin (cont.)



Tephritidae, Dacus bivittatus, male



Tephritidae, Bactrocera cucurbitae, male

Lagenaria sphaerica (Sond.) Naudin (cont.)



Neriidae, Chaetonerius sp.



Syrphidae, Graptomyza sp.

7. *Momordica rostrata* A.Zimm.



Plant type and distribution

Climber, unarmed, latex absent

Dry woodland

Taita Hills collection site(s): Mwatate area, on small farm, Mbololo forest edge

Month(s) collected: MAR, MAY

Leaf

Arrangement: alternate

Type: compound, biternate (i.e. three groups of three leaflets each).

Description: leaflets broadly ovate, base cuneate, apex obtuse, margin with widely spaced teeth

Fruit

Inflorescence: solitary flowers

Fruit: yellow-orange berry, ovoid, beaked, ca. 60-75mm

Reared insects

Diptera: Tephritidae, Hymenoptera

Momordica rostrata A.Zimm. (cont.)



Tephritidae, Dacus ciliatus, Male



Tephritidae, Dacus punctatifrons, Male,

***Momordica rostrata* A.Zimm. (cont.)**



Braconidae, Opiinae, Fopius sp.

8. *Momordica spinosa* (Gilg) Chiov.



Plant type and distribution

Climber, with paired spines, latex absent
Dry woodland
Taita Hills collection site(s): Voi-Mwatate road
Month(s) collected: JUL

Leaf

Arrangement: alternate
Type: simple
Description: leaves nearly pentagonal in outline, margin entire (?)

Fruit

Inflorescence: solitary flowers
Fruit: orange berry, almost round in outline, with pronounced soft processes arranged linearly along elevated ridges, ca. 60-80mm

Reared insects

none

9. *Peponium vogelii* (Hook.f.) Engl.



Plant type and distribution

Climber, unarmed, latex absent

Forest edge

Taita Hills collection site(s): Vuria Forest edge

Month(s) collected: JAN, FEB, NOV

Leaf

Arrangement: alternate

Type: simple

Description: leaves shallowly or deeply 5-7 lobed, base obtuse, apex acute, margin toothed

Fruit

Inflorescence: solitary flowers

Fruit: greenish-brown berry, almost cylindrical or long ellipsoid, hairy, ca. 120-200mm

Reared insects

None

Dichapetalaceae

1. *Dichapetalum eickii* Ruhland



Plant type and distribution

Liana, unarmed, latex absent

Moist upland forest of Taita Hills

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: MAR, APR, MAY, JUL, AUG, NOV

Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic or (ob)ovate, base cuneate or obtuse, apex acute or acuminate, margin entire

Fruit

Inflorescence: cyme

Fruit: greenish-brown drupe, tomentellous, ellipsoid to obovoid 12-20mm

Reared insects

Hymenoptera, Lepidoptera

Dichapetalum eickii Ruhland (cont.)



Nolidae, Giaura bostyrcoodes



Tortricidae, Archipini, probably Procrisca sp.

Dichapetalum eickii Ruhland (cont.)



Braconid, probably Cheloniinae sp., male



Ichneumonidae sp., male

Dracaenaceae

1. *Dracaena afromontana* Mildbr.



Plant type and distribution

Tree with palm-like habit, unarmed, latex absent

Moist forest

Taita Hills collection site(s): Vuria Forest

Month(s) collected: JUL, AUG, OCT

Leaf

Arrangement: bunched

Type: simple

Description: leaves narrowly lanceolate, base amplexicaul, apex acute, margin entire

Fruit

Inflorescence: panicle

Fruit: orange berry, ± globose or lobed, 15-18mm

Reared insects

none

2. *Dracaena laxissima* Engl.



Plant type and distribution

Scandent shrub or climber, unarmed, latex absent
Moist or riverine forest
Taita Hills collection site(s): Mbololo Forest
Month(s) collected: MAY

Leaf

Arrangement: alternate
Type: simple
Description: leaves elliptic, base cuneate or rounded, apex acuminate, margin entire

Fruit

Inflorescence: panicle
Fruit: orange to orange-red, globose or lobed, 6-10mm

Reared insects:

Diptera: Tephritidae

Dracaena laxissima Engl. (cont.)



Tephritidae, Taomyia probably sp. nov., male, lateral aspect



Tephritidae, Taomyia probably sp. nov., female, dorsal aspect

3. *Dracaena steudneri* Engl.



Plant type and distribution

Tree, unarmed, latex absent

Moist and dry forest

Taita Hills collection site(s): Chawia, Mbololo and Ngangao Forests, road to Fururu Forest, Mwatate area riverine forest

Month(s) collected: FEB, MAR, APR, MAY, JUL, AUG, DEC

Leaf

Arrangement: bunched

Type: simple

Description: leaves narrowly lanceolate, base amplexicaul, apex acute, margin entire

Fruit

Inflorescence: panicle

Fruit: orange berry, ± globose or lobed, 12-18mm

Reared insects

Diptera: Tephritidae

Dracaena steudneri Engl.(cont)



Tephritidae, Taomyia probably sp. nov., male, lateral aspect



Tephritidae, Taomyia probably. sp. nov., female, dorsal aspect

Ebenaceae

1. *Diospyros consolatae* Chiov.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Dry forest, woodland, moister bushland
Taita Hills collection site(s): base of Kasigau Mountain, Ronge Nyika
Month(s) collected: MAR, MAY

Leaf

Arrangement: alternate
Type: simple
Description: leaves elliptic or obovate, base cuneate or almost rounded, apex subacute or rounded, margin entire

Fruit

Inflorescence: solitary or in pairs
Fruit: yellow-green, depressed globose, 14-17mm

Reared insects

none

2. *Diospyros zombensis* (B.L.Burtt) F.White



Plant type and distribution

Shrub or tree, unarmed, latex absent

Riverine forest

Taita Hills collection site(s): riverine forest in Mwatate area, also Wundanyi-Ngangao road.

Month(s) collected: FEB, MAY, JUL

Leaf

Arrangement: alternate

Type: simple

Description: leaves obovate, base rounded or subcordate, apex shortly acuminate, margin entire

Fruit

Inflorescence: cyme

Fruit: yellow, globose or subglobose, 30-40mm

Reared insects

Diptera: Tephritidae, Lepidoptera

Diospyros zombensis (B.L.Burtt) F.White (cont.)



Tephritidae, Bactrocera dorsalis, female, lateral aspect



Tephritidae, Bactrocera dorsalis, female, dorsal aspect

***Diospyros zombensis* (B.L.Burtt) F.White (cont.)**



Tortricidae, Metamesia sp. near episema

Ericaceae

1. *Agarista salicifolia* (Lam.) G. Don



Plant type and distribution

Shrub or tree, unarmed, latex absent
Forest edge, secondary forest, high altitude bushland
Taita Hills collection site(s): Vuria Forest edge
Month(s) collected: FEB

Leaf

Arrangement: alternate to subopposite
Type: simple
Description: leaves leathery, elliptic, base cuneate or rounded, apex rounded and mucronate, or slightly acuminate, margin entire

Fruit

Inflorescence: raceme
Fruit: reddish-brown capsule with persistent style, globose or ellipsoid, 4-5mm

Reared insects

none

Euphorbiaceae

1. *Croton sylvaticus* Hochst.



Plant type and distribution

Tree, unarmed, latex absent

Moist evergreen forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: MAR

Leaf

Arrangement: alternate

Type: simple

Description: leaves ovate, base cuneate, rounded, or subcordate, apex acuminate, margin crenate-serrate

Fruit

Inflorescence: raceme

Fruit: capsule, orange to red, ovoid or subglobose, 10-13mm

Reared insects

none

2. *Euphorbia engleri* Pax



Plant type and distribution

Shrub or woody herb, unarmed, latex present
Dry or moist upland forest
Taita Hills collection site(s): Ngangao Forest
Month(s) collected: DEC

Leaf

Arrangement: alternate
Type: simple
Description: leaves narrowly elliptic, base attenuate, apex acute, margin entire

Fruit

Inflorescence: cyme
Fruit: capsule, yellow-green, trilobed, 4-5mm

Reared insects

none

3. *Jatropha spicata* Pax



Plant type and distribution

Shrub or woody herb, unarmed, latex present
Acacia/Commiphora bushland
Taita Hills collection site(s): near base of Kasigau Mountain
Month(s) collected: OCT

Leaf

Arrangement: alternate
Type: simple
Description: leaves palmately and deeply 3-5 lobed, margin serrate

Fruit

Inflorescence: cyme
Fruit: capsule, green, ellipsoid, 3-lobed, 10-13mm

Reared insects

none

4. *Macaranga conglomerata* Brenan



Tortricidae, Lobesia semosa

Plant type and distribution

Tree, unarmed, latex absent
Moist forest in Taita Hills
Taita Hills collection site(s): Ngangao and Sagalla Forests
Month(s) collected: APR, MAY, OCT
Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: alternate
Type: simple
Description: leaves ovate, base rounded or cordate, apex acuminate, margin entire or slightly dentate

Fruit

Inflorescence: panicle
Fruit: capsule, green, obovoid or two-lobed, 4-8mm

Reared insects

Lepidoptera

Fabaceae

1. *Crotalaria cf. axillaris* Aiton



Plant type and distribution

Shrub, unarmed, latex absent

Forest margin, bushland, woodland

Taita Hills collection site(s): Kasigau Mountain

Month(s) collected: OCT

Leaf

Arrangement: alternate

Type: compound, trifoliolate

Description: leaflets elliptic, base cuneate, apex acute to rounded, margin entire

Fruit

Inflorescence: raceme

Fruit: pod, green, 45-60mm

Reared insects

Lepidoptera, Hymenoptera

Crotalaria cf. *axillaris* Aiton (cont.)



Pyralidae, Phycitinae, Etiella zinckenella



Ichneumonidae sp.

2. *Crotalaria lukwangulensis* Harms



Plant type and distribution

Climber with purple stems, unarmed, latex absent
Forest margin
Taita Hills collection site(s): Vuria Forest edge
Month(s) collected: NOV
Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: alternate
Type: compound, trifoliolate
Description: leaflets narrow elliptic, base cuneate, apex acute to obtuse, margin entire

Fruit

Inflorescence: raceme
Fruit: pod, green to purple, 45-60mm

Reared insects

none

3. *Tamarindus indica* L.



Plant type and distribution

Tree, unarmed, latex absent
Riverine, bushland, wooded grassland
Taita Hills collection site(s): lower elevation on Mbololo Mountain
Month(s) collected: MAR

Leaf

Arrangement: alternate
Type: compound, paripinnate
Description: 9-21 pairs of leaflets, leaflets oblong, base asymmetrical, apex rounded, margin entire

Fruit

Inflorescence: raceme
Fruit: pod, rusty-brown, 60-140mm

Reared insects

none

Hamamelidaceae

1. *Trichocladus ellipticus* Eckl. & Zeyh. ssp. *malosanus* (Baker) Verdc.



Plant type and distribution

Shrub or tree, unarmed, latex absent

Dry or moist forest, riverine forest

Taita Hills collection site(s): forest on Kasigau Mountain

Month(s) collected: OCT

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic or obovate, base cuneate or rounded, apex acute or acuminate, margin entire

Fruit

Inflorescence: axillary in dense heads

Fruit: capsule, obovoid or subglobose, 5-7mm

Reared insects

none

Lamiaceae

1. *Clerodendrum cephalanthum* Oliv.



Plant type and distribution

Shrub (scandent?), spines (?) on stems, latex absent

Forest

Taita Hills collection site(s): Sagalla Forest

Month(s) collected: MAY

Leaf

Arrangement: sub-opposite

Type: simple

Description: leaves ovate to elliptic, base rounded, apex acute or acuminate, margin entire

Fruit

Inflorescence: axillary cyme

Fruit: capsule, 4-lobed with persistent calyx, \pm globose, ca. 10mm

Reared insects

none

2. *Premna hildebrandti* Gürke



Plant type and distribution

Shrub or small tree, unarmed, latex absent
Riverine or groundwater forest, bushland
Taita Hills collection site(s): near base of Mbololo mountain
Month(s) collected: MAR

Leaf

Arrangement: opposite
Type: simple
Description: leaves long-petiolate, broadly ovate, base rounded or cordate, apex acuminate, margin serrate or entire

Fruit

Inflorescence: terminal panicle
Fruit: berry, black, ellipsoid, to 7mm

Reared insects

Diptera: Tephritidae

Premna hildebrandti Gürke (cont.)



Tephritidae, Philophylla fossataeformis

3. *Hoslundia opposita* Vahl



Plant type and distribution

Shrub, unarmed, latex absent
Bushland, wooded grassland, forest margins
Taita Hills collection site(s): Ronge Nyika
Month(s) collected: MAY

Leaf

Arrangement: opposite
Type: simple
Description: leaves ovate or elliptic, base cuneate, apex acute, margin serrate

Fruit

Inflorescence: terminal raceme
Fruit: nutlets hidden in yellow-orange, fleshy, pointed calyx, 7-9mm

Reared insects (from galled fruit)

Non-tephritid Diptera, Hymenoptera, Lepidoptera

Hoslundia opposita Vahl (cont.)



Hoslundia opposita, galled fruits



Nolidae, *Nola* sp. nr. *poliophasma*, ex galled fruit

Hoslundia opposita Vahl (cont.)



Cecidomyiidae, probably Asphondylia sp., ex galled fruit



Braconidae, Braconinae sp., female, ex galled fruit

Hoslundia opposita Vahl (cont.)



Eulophidae sp., ex galled fruit



Eurytomidae sp., female, ex galled fruit

4. *Pycnostachys meyeri* Gürke



Plant type and distribution

Woody herb or shrub, inflorescence slightly spiny, latex absent
Forest margins, secondary bushland
Taita Hills collection site(s): Vuria Forest margin
Month(s) collected: NOV

Leaf

Arrangement: opposite
Type: simple
Description: leaves elliptic or lanceolate, base cuneate, apex acute, margin serrate

Fruit

Inflorescence: terminal spike
Fruit: very small nutlet

Reared insects

Diptera: Tephritidae, Hymenoptera

Pycnostachys meyeri Gürke (cont.)



Tephritidae, Dicheniotes erosa



Pteromalidae sp.

5. *Vitex keniensis* Turrill



Plant type and distribution

Tree, unarmed, latex absent

Moist evergreen forest

Taita Hills collection site(s): Ngangao and
Sagalla Forests

Month(s) collected: APR, MAY

Leaf

Arrangement: opposite

Type: compound, 5-foliolate

Description: leaflets elliptic or broadly obovate,
base cuneate, often asymmetrical, apex
rounded, acute, or short acuminate, margin
entire

Fruit

Inflorescence: axial dichasia (cyme)

Fruit: drupe, black, ellipsoid, ca. 13-16mm

Reared insects

none

Lauraceae

1. *Cinnamomum camphora* (L.) J.Presl.



Plant type and distribution

Tree (exotic), unarmed, latex absent

Taita Hills collection site(s) : Just below Fururu Forest, on farm

Month(s) collected: MAR

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic or ovate, leaf blade with three longitudinal veins originating near base, base cuneate, apex acute or acuminate, margin entire

Fruit

Inflorescence: raceme

Fruit: drupe, purple-black, globose or subglobose, 7-9mm on a narrower cup

Reared insects

none

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2. *Ocotea kenyensis* (Chiov.) Robyns & R.Wilczek



Drosophiidae sp.

Plant type and distribution

Tree, unarmed, latex absent

Moist forest

Taita Hills collection site(s): Mbololo Forest

Month(s) collected: AUG, OCT

Endemic to Kenya

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic or ovate, base cuneate or rounded, apex shortly acuminate, margin wavy

Fruit

Inflorescence: panicle

Fruit: drupe supported in cup, ovoid or ellipsoid, becoming purple, 15-20mm

Reared insects

Non-tephritid Diptera

Lobeliaceae

1. *Lobelia gibberoa* Hemsl.



Plant type and distribution

Erect shrub or small tree, unarmed, latex present
Forest margin, riverine forest, secondary forest
Taita Hills collection site(s): Vuria Forest edge
Month(s) collected: FEB

Leaf

Arrangement: alternate
Type: simple
Description: leaves narrowly lanceolate, base sessile, apex acute or acuminate, margin dentate

Fruit

Inflorescence: long raceme
Fruit: capsule, green, ellipsoid to subglobose, 10-15mm

Reared insects

none

Lobelia gibberoa Hemsl. (cont.)



Lobelia gibberoa, habitus

Loranthaceae

1. *Englerina kagehensis* (Engl.) Polhill & Wiens



Plant type and distribution

Parasitic shrub, unarmed, latex absent
Wooded grassland and bushland
Taita Hills collection site(s): below Sagalla Forest, edge of Ngangao Forest, Ronge Nyika
Month(s) collected: MAY

Leaf

Arrangement: opposite, subopposite
Type: simple
Description: leaves elliptic-lanceolate to ovate, base obtuse to round, apex acute, margin entire

Fruit

Inflorescence: umbel
Fruit: berry, red, obovoid, 6-8mm

Reared insects

Diptera: Tephritidae, Hymenoptera

Englerina kagehensis (Engl.) Polhill & Wiens (cont.)



Tephritidae, Perilampus formosula, female



Tephritidae, Perilampus inchoata, female

Englerina kagehensis (Engl.) Polhill & Wiens (cont.)



Tephritidae, Perilampus pulchella, female



Braconidae, Opiinae, Psyttalia sp., female

Malvaceae

1. *Grewia arborea* Forssk. (Lam.)

PLANT IMAGE NOT AVAILABLE



Gelechiidae, Anacampsininae, probably Compsolechia sp.

Plant type and distribution

Shrub or tree, unarmed, latex absent

Dry Acacia bushland, bushed grassland

Taita Hills collection site(s): Ronge-Nyika, mixed shrub and grassland

Month(s) collected: MAY

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic or obovate, base asymmetrical, cuneate to subcordate, apex rounded to shortly acuminate, margin serrate

Fruit

Inflorescence: yellow flowers in few-flowered axillary cymes

Fruit: berry or drupe, orange, or red-brown, round or 2-lobed, to ca. 10-16mm, slightly hairy

Reared insects

Lepidoptera

2. *Grewia tephrodermis* K.Schum.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Dry Acacia bushland, bushed grassland or woodland
Taita Hills collection site(s): base of Kasigau Mountain
Month(s) collected: MAR

Leaf

Arrangement: alternate
Type: simple
Description: leaves elliptic to slightly obovate, base asymmetrical, broadly cuneate to subcordate, apex acute or rounded, margin serrulate

Fruit

Inflorescence: one or two axillary flowers
Fruit: berry or drupe, sparsely hairy, yellow, orange, or red-brown, round or 2-lobed, to ca. 7-9mm, rarely larger

Reared insects

Hymenoptera, Lepidoptera

Grewia tephrodermis K.Schum. (cont.)



Gelechiidae, Anacampsinæ, probably Compsolechia sp.



Braconidae, Agathidinae sp., male

Grewia tephrodermis K.Schum. (cont.)



Eulophidae, Entedoninae, Entedon sp. nov., male



Eulophidae, Entedoninae, Entedon sp. nov., female

Grewia tephrodermis K.Schum. (cont.)



Eulophidae, Entiinae, Euderus sp., female



Torymidae, Megastigminae, Megastigmus copelandi sp. nov., female

3. *Hibiscus calyphyllus* Cav.



Plant type and distribution

Shrub or herb, unarmed, latex absent
Riverine, forest margins, thickets and bushland, wet and dry habitats
Taita Hills collection site(s): Mwatate area, riverine forest edge
Month(s) collected: MAY

Leaf

Arrangement: alternate
Type: simple
Description: leaves sub-orbicular or broadly ovate, obscurely or clearly 3-5 lobed, base (sub)cordate, apex acute, margin serrate

Fruit

Inflorescence: solitary, axillary
Fruit: capsule, ellipsoid, 15-25mm

Reared insects

Lepidoptera

Hibiscus calyphyllus Cav. (cont.)



Crambidae, Spilomelinae, Rehimena biplagiata

Meliaceae

1. *Ekebergia capensis* Sparrm.



Plant type and distribution

Tree, unarmed, latex absent

Dry, or less often, moist forest, riverine forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: MAY

Leaf

Arrangement: alternate

Type: compound, imparipinnate, with 7-11 leaflets

Description: leaflets (sub)opposite, \pm elliptic, base asymmetrical, cuneate, apex acute, margin entire

Fruit

Inflorescence: cyme

Fruit: drupe, yellow or red, subglobose, 10-15mm

Reared insects

none

2. *Lepidotrichilia volkensii* (Gürke) J.-F.Leroy



Plant type and distribution

Shrub or tree; unarmed, latex absent

Upland forest margins

Taita Hills collection site(s): Chawia, Ngangao, Vuria Forests

Month(s) collected: FEB, APR, MAY, JUL, AUG, OCT, DEC

Leaf

Arrangement: alternate

Type: compound, imparipinnate, 7-9 leaflets

Description: leaflets elliptic to obovate, base cuneate (asymmetrical), apex acute or obtuse, margin entire

Fruit

Inflorescence: panicle

Fruit: drupe, yellow-orange, subglobose, 10-15mm

Reared insects

Diptera: Tephritidae

Lepidotrichilia volkensis (Gürke) J.-F.Leroy (cont.)



Tephritidae, Ceratitis species nov., female



Tephritidae, Ceratitis species nov., male

3. *Melia azedarach* L.



Plant type and distribution

Tree: unarmed, latex absent

Drier areas, grassland, bushland

Taita Hills collection site(s): Mwatate area, on farm

Month(s) collected: FEB

Leaf

Arrangement: alternate

Type: compound, bi-(tri-)pinnate

Description: leaflets opposite or subopposite, ± lanceolate, base asymmetric, apex acuminate or subacuminate, margin crenate or serrate

Fruit

Inflorescence: panicle

Fruit: drupe, pale yellow, ellipsoid, 12-20mm

Reared insects

none

4. *Melia volkensii* Gürke



Plant type and distribution

Tree: unarmed, latex absent

Drier areas, grassland, bushland

Taita Hills collection site(s): Mwatate area, on farm

Month(s) collected: FEB

Leaf

Arrangement: alternate

Type: compound, bipinnate

Description: leaflets subopposite, 3-7 per pinnae, \pm elliptic, base cuneate, apex acute or acuminate, margin entire or serrate

Fruit

Inflorescence: panicle

Fruit: drupe, yellow, ellipsoid or ovoid, 25-40mm

Reared insects

none

5. *Trichilia emetica* Vahl



Plant type and distribution

Tree: unarmed, latex absent

Riverine forest

Taita Hills collection site(s): Mwatate area riverine forest

Month(s) collected: not sampled

Leaf

Arrangement: alternate

Type: compound, imparipinnate, 9-11 leaflets

Description: leaflets opposite or alternate, elliptic or ovate, base rounded, apex acute, margin entire

Fruit

Inflorescence: cyme

Fruit: tri-locular capsule, greenish-white, ovoid or globose, 18-28mm

Reared insects

not sampled

6. *Turraea holstii* Gürke



Plant type and distribution

Shrub or tree: unarmed, latex absent

Forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: FEB

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic, base cuneate, apex bluntly acuminate, margin entire

Fruit

Inflorescence: cyme

Fruit: capsule, green-yellow, subglobose, 9-15 mm

Reared insects

none

7. *Turraea cf. robusta* Gürke



Plant type and distribution

Shrub or tree: unarmed, latex absent
Wooded grassland, bushland, riverine forest
Taita Hills collection site(s): Ngangao Forest edge
Month(s) collected: MAR

Leaf

Arrangement: alternate
Type: simple
Description: leaves elliptic or obovate, base cuneate, apex rounded to acute, margin entire

Fruit

Inflorescence: cyme
Fruit: capsule, green-yellow, subglobose or obovoid, 10-18mm

Reared insects

none

Melianthaceae

1. *Bersama abyssinica* Fresen.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Upland grassland, dry and wet montane and riparian forest glades and edges
Taita Hills collection site(s): just below Ngangao Forest
Month(s) collected: MAY

Leaf

Arrangement: alternate, clustered at ends of branches
Type: compound, pinnate
Description: leaves to 1m long, with 5-10 pairs of subopposite leaflets, these elliptic to ovate or lanceolate, base cuneate to rounded, often asymmetrical, apex acute to acuminate, margin entire or serrate

Fruit

Inflorescence: raceme
Fruit: capsule, often grooved, reddish, velvety, globose, ca. 13-18mm

Reared insects

Diptera: Tephritidae (probable laboratory contamination),
Lepidoptera

***Bersama abyssinica* Fresen. (cont.)**



Carposinidae sp.

Menispermaceae

1. *Chasmanthera dependens* Hochst.



Plant type and distribution

Liana: unarmed, latex absent
Dry areas and along luggas
Taita Hills collection site(s): base of Mbololo Mountain
Month(s) collected: MAR

Leaf

Arrangement: alternate
Type: simple
Description: leaves broadly ovate, base deeply cordate, apex acuminate or mucronate, margin entire

Fruit

Inflorescence: raceme
Fruit: drupe, orange, ovoid, 10-15mm

Reared insects

none

2. *Tiliacora* near *kenyensis* Troupin



Plant type and distribution

Liana: unarmed, latex absent

Moist forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: JUL, AUG, OCT

In Kenya, previously known only from Kakamega Forest

Leaf

Arrangement: alternate

Type: simple

Description: leaves, base obtuse or cuneate, apex acute, margin entire

Fruit

Inflorescence: raceme from old wood

Fruit: drupe, orange, obovoid, 10-14mm

Reared insects

Coleoptera

Tiliacora near *kenyensis* Troupin (cont.)



Tiliacora kenyensis, fruits on old wood

***Tiliacora near kenyensis* Troupin (cont.)**



Nitidulidae sp.

3. *Tinospora caffra* (Miers) Troupin



Plant type and distribution

Herbaceous or woody Liana: unarmed, latex absent
Low to high elevation wet forest, woodland, deciduous bushland
Taita Hills collection site(s): Base of Mbololo Mountain
Month(s) collected: JAN

Leaf

Arrangement: alternate
Type: simple
Description: leaves broadly ovate, base cordate to rounded, apex acuminate, often with small mucron, margin entire

Fruit

Inflorescence: raceme
Fruit: drupe, red, ellipsoid, 8-12mm

Reared insects

Non-tephritid Diptera

***Tinospora caffra* (Miers) Troupin (cont.)**



Syrphidae Paragus sp., probably azurea, as larva on plant

Monimiaceae

1. *Xymalos monospora* (Harv.) Baill.



Plant type and distribution

Tree: unarmed, latex absent

Moist forest

Taita Hills collection site(s): Chawia, Sagalla and Vuria Forests

Month(s) collected: JAN, FEB, MAY, JUL, AUG, NOV

Leaf

Arrangement: (sub)opposite

Type: simple

Description: leaves elliptic or obovate, base cuneate, apex rounded to shortly acuminate, margin crenate/serrate

Fruit

Inflorescence: panicle or raceme

Fruit: drupe, orange, yellow or red, ovoid, 10-20mm

Reared insects

Non-tephritid Diptera, Hymenoptera, Lepidoptera

Xymalos monospora (Harv.) Bail. (cont.)



Tortricidae, Thaumatotibia batrachopa, male



Tortricidae, Thaumatotibia batrachopa, female

Xymalos monospora (Harv.) Baill. (cont.)



Oecophoridae, Stathmopoda sp.



Tortricidae, Dracontogena continentalis

Xymalos monospora (Harv.) Bail. (cont.)



Braconidae, Alysinae, Alysiini sp.



Braconidae, Braconinae, Bracon sp., male

***Xymalos monospora* (Harv.) Baill. (cont.)**



Heleomyzidae, Suillia sp.

Musaceae

1. *Ensete ventricosum* (Welw.) Cheesman



Plant type and distribution

Herbaceous tree: unarmed, latex absent
Moist forest
Taita Hills collection site(s): farm near Vuria Forest
Month(s) collected: JAN

Leaf

Arrangement: alternate
Type: simple
Description: leaves oblong, to 5m long, margin entire

Fruit

Inflorescence: raceme (?)
Fruit: a small banana (berry), yellowish, to ca. 130mm

Reared insects

none

Ensete ventricosum (Welw.) Cheesman (cont.)



Ensete ventricosum, habitus

Myrsinaceae

1. *Maesa lanceolata* Forssk.



Plant type and distribution

Tree: unarmed, latex absent
Forest margin pioneer
Taita Hills collection site(s): Vuria Forest
Month(s) collected: NOV

Leaf

Arrangement: alternate
Type: simple
Description: leaves usually elliptic or lanceolate, base cuneate to rounded, apex obtuse to acuminate, margin dentate to entire

Fruit

Inflorescence: panicle
Fruit: berry, creamy white to yellow-red, globose with a circle of calyx lobes near apex, 4mm

Reared insects

Lepidoptera

Maesa lanceolata Forssk. (cont.)



Tortricidae, Idiothauma sp. nr. africanum



Oecophoridae, Stathmopodinae sp.

***Maesa lanceolata* Forssk. (cont.)**



Geometridae, Geometrinae, Cosmostolopsis simplex

2. *Rapanea melanophloeos* (L.) Mez



Plant type and distribution

Tree: unarmed, latex absent

Upland forest

Taita Hills collection site(s): Vuria Forest

Month(s) collected: JAN, FEB, DEC

Leaf

Arrangement: bunched at end of branch

Type: simple

Description: leaves elliptic to obovate, base cuneate, apex obtuse to acute, margin entire, young leaves with reddish petiole and midrib

Fruit

Inflorescence: cluster on small knobs

Fruit: berry, purple, globose, 5-8mm

Reared insects

Hymenoptera, Lepidoptera

Rapanea melanophloeos (L.) Mez (cont.)



Tortricidae, Grapholitini, probably Cydia sp. nr connara



Oecophoridae, Stathmopodinae sp.

Rapanea melanophloeos (L.) Mez (cont.)



Ichneumonidae sp., female



Braconid, Braconinae, Bracon sp., male

Rapanea melanophloeos (L.) Mez (cont.)



Braconid, Microgastrinae sp., female



Eurytomidae male

Myrtaceae

1. *Syzygium guineense* (Willd.) DC.



Ellipsoid fruit form

Plant type and distribution

Tree: unarmed, latex absent
Forest, riverine, wooded grassland
Taita Hills collection site(s): Chawia Forest, Mbololo Mountain,
Wundanyi area, Mwatate area, on small farm
Month(s) collected: JAN, FEB, MAR

Leaf

Arrangement: opposite
Type: simple
Description: leaves elliptic, base cuneate, apex obtuse to
acuminate, margin entire

Fruit

Inflorescence: cyme
Fruit: berry, purple-black, globose or ellipsoid, 12-35mm

Reared insects

Coleoptera, Hymenoptera, Lepidoptera

Syzygium guineense (Willd.) DC. (cont.)



Round fruit form



Curculionidae sp.

Syzygium guineense (Willd.) DC. (cont.)



Tortricidae, Thaumatotibia leucotreta male



Tortricidae, Thaumatotibia leucotreta, female

Syzygium guineense (Willd.) DC. (cont.)



Ichneumonidae sp.



Braconidae, Helconinae, Brachistini, probably Triaspis sp.

2. *Syzygium micklethwaitii* Verdc.



Plant type and distribution

Tree: unarmed, latex absent

Moist forest

Taita Hills collection site(s): Mbololo and Ngangao Forests

Month(s) collected: MAY, AUG

Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: opposite

Type: simple

Description: leaves broadly elliptic, base rounded, apex with a short blunt acumen, margin slightly unrolled

Fruit

Inflorescence: cyme

Fruit: berry, purple-black, globose, to 16mm

Reared insects

Hymenoptera, Lepidoptera (images not available)

Ochnaceae

1. *Ochna inermis* (Forssk.) Schweinf.



Plant type and distribution

Tree: unarmed, latex absent

Bushland, rocky slopes

Taita Hills collection site(s): Kasigau Mountain

Month(s) collected: OCT

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic to obovate, base rounded or cuneate, apex obtuse or rounded, margin with tiny teeth

Fruit

Inflorescence: solitary flowers

Fruit: drupelets, black, ellipsoid, 8-13mm, surrounded by red sepals

Reared insects

Hymenoptera, Lepidoptera

Ochna inermis (Forssk.) Schweinf. (cont.)



Tortricidae, Grapholita mesosocia



Tortricidae, Grapholita miranda

Ochna inermis (Forssk.) Schweinf. (cont.)



Braconidae, Cheloninae, probably Phaedrotoma sp., lateral aspect



Braconidae, Cheloninae, probably Phaedrotoma sp., dorsal aspect

Ochna inermis (Forssk.) Schweinf. (cont.)



Braconidae, Cheloninae, Microchelonus sp., lateral aspect



Braconidae, Cheloninae, Microchelonus sp., dorsal aspect

Ochna inermis (Forssk.) Schweinf. (cont.)



Braconidae, Braconinae, Bracon sp.

Olacaceae

1. *Strombosia scheffleri* Engl.



Plant type and distribution

Tree: unarmed, latex absent

Moist forest

Taita Hills collection site(s): Mbololo and Ngangao Forests

Month(s) collected: MAY, AUG

Leaf

Arrangement: alternate

Type: simple

Description: leaves ovate to obovate, base rounded or cuneate, apex acute to rounded, margin entire

Fruit

Inflorescence: axillary clusters

Fruit: drupe, blackish, ellipsoid, 20-30mm, apex with depression

Reared insects

none

2. *Ximenia caffra* Sond.



Plant type and distribution

Shrub or tree: usually with long axial spines, latex absent
Wooded grassland, dry woodland
Taita Hills collection site(s): Ronge Nyika
Month(s) collected: JAN

Leaf

Arrangement: alternate
Type: simple
Description: leaves alternate or clustered on spur shoots, elliptic or obovate, base cuneate to rounded, apex obtuse or emarginate, margin entire

Fruit

Inflorescence: solitary or in axillary clusters
Fruit: drupe, orange-red, ovoid or ellipsoid, ca. 20-25mm

Reared insects

Hymenoptera, Lepidoptera

Ximenia caffra Sond. (cont.)



Tortricidae, Thaumatotibia leucotreta, female



Tortricidae, Thaumatotibia leucotreta, male

Ximenia caffra Sond. (cont.)



Braconidae sp.



Ichneumonidae sp.

Oleaceae

1. *Jasminum cf. punctulatum* Chiov.



Plant type and distribution

Climber, unarmed, latex absent

Dry, lower elevation habitats

Taita Hills collection site(s): Ronge Nyika

Month(s) collected: JAN

Leaf

Arrangement: spirally arranged

Type: simple

Description: leaves spirally arranged, ovate, base obtuse, apex obtuse to rounded, margin entire

Fruit

Inflorescence: cyme (?)

Fruit: berry, black, globose, ca. 5-8mm

Reared insects

Hymenoptera, Lepidoptera

Jasminum cf. punctulatum Chiov. (cont.)



Crambidae, Spilomelinae, Palpita unionalis



Braconidae, Cheloninae, probably Phaedrotoma sp., male

Opiliaceae

1. *Opilia amentacea* Roxb.



Plant type and distribution

Liana, unarmed, latex absent

Dry forest or woodland, often riparian

Taita Hills collection site(s): base of Kasigau Mountain

Month(s) collected: MAR APR

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic, base cuneate to rounded, apex acute, obtuse or acuminate, margin entire

Fruit

Inflorescence: raceme

Fruit: drupe, white, yellow or orange, ellipsoid, to 15mm

Reared insects

none

Passifloraceae

1. *Adenia gummifera* (Harv.) Harms



Plant type and distribution

Liana or climber, unarmed, latex absent
Dry or moist forest, riverine forest
Taita Hills collection site(s): Mwatate area, riverine forest, also Kasigau Mountain
Month(s) collected: FEB, MAR, MAY

Leaf

Arrangement: alternate
Type: simple
Description: leaves entire or 3-lobed, round or ovate, base cordate or truncate, apex obtuse or emarginate, margin entire

Fruit

Inflorescence: cyme
Fruit: capsule, green, ovoid or ellipsoid, 25-40mm

Reared insects

Diptera: Tephritidae

Adenia gummifera (Harv.) Harms (cont.)



Tephritidae, Dacus chiwira, male



Tephritidae, Dacus durbanensis, female

Adenia gummifera (Harv.) Harms (cont.)



Tephritidae, Dacus humeralis, male

2. *Adenia keramanthus* Harms



Plant type and distribution

Woody herb or shrub, unarmed, latex absent
Bushland
Taita Hills collection site(s): Ronge Nyika
Month(s) collected: MAY, JUL

Leaf

Arrangement: alternate (?)
Type: simple
Description: Leaves heart-shaped, ovate, base weakly cordate, apex acute or obtuse, margin toothed.

Fruit

Inflorescence: solitary flowers (?)
Fruit: berry, bright red, obovoid to ca. 40-50mm

Reared insects

Diptera: Tephritidae

Adenia keramanthus Harms (cont.)



Tephritidae, Dacus durbanensis, female



Tephritidae, Dacus durbanensis, male

Phyllanthaceae

1. *Bridelia taitensis* Vatke & Pax



Plant type and distribution

Shrub or tree, unarmed, latex absent

Wooded grassland or woodland

Taita Hills collection site(s): base of Kasigau Mountain, Ronge Nyika

Month(s) collected: MAY, JUL

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic or obovate, base cuneate or rounded, apex obtuse or subacute, margin entire or shallowly crenate

Fruit

Inflorescence: dense axillary clusters

Fruit: berry (drupe?), reddish-purple to black, globose, 6-8mm

Reared insects

none

2. *Flueggea virosa* (Willd.) Voigt.



Plant type and distribution

Shrub, unarmed, latex absent

Riparian, bushland, grassland, forest margins

Taita Hills collection site(s): Mwatate area, riverine forest

Month(s) collected: MAY

Leaf

Arrangement: alternate

Type: simple

Description: leaves obovate, base cuneate, apex rounded or emarginate, margin entire

Fruit

Inflorescence: axillary fascicles

Fruit: berry, white, subglobose, 4-6mm

Reared insects

none

Piperaceae

1. *Piper capense* L.f.



Plant type and distribution

Woody herb or shrub, unarmed, latex absent
Moist forest or riverine forest
Taita Hills collection site(s): Fururu Forest
Month(s) collected: DEC

Leaf

Arrangement: alternate
Type: simple
Description: Leaves elliptic or broadly ovate, base cordate or rounded, apex acuminate, margin entire

Fruit

Inflorescence: cylindrical spike, to ca. 35-40mm
Fruit: berry, white, minute, ca. 2mm

Reared insects

Non-tephritid Diptera

***Piper capense* L.f. (cont.)**



Drosophilidae sp.

Pittosporaceae

1. *Pittosporum viridiflorum* Sims



Plant type and distribution

Tree, unarmed, latex absent
Dry evergreen forest or riverine forest, wooded grassland
Taita Hills collection site(s): Ronge Nyika
Month(s) collected: JAN

Leaf

Arrangement: alternate
Type: simple
Description: Leaves obovate, base cuneate, apex obtuse or bluntly acuminate, margin entire

Fruit

Inflorescence: panicle
Fruit: capsule, yellow-orange, 6-10mm, globose, with persistent apical style, splitting in two revealing sticky reddish seeds

Reared insects

Lepidoptera

Pittosporum viridiflorum Sims (cont.)



Pittosporum viridiflorum, showing sticky seeds



Epermeniidae sp.

Putranjivaceae

1. *Drypetes gerrardii* Hutch.



Plant type and distribution

Tree, unarmed, latex absent

Dry or moist upland forest or riverine forest

Taita Hills collection site(s): Mbololo Forest

Month(s) collected: OCT

Leaf

Arrangement: alternate

Type: simple

Description: leaves ovate or elliptic, base cuneate (usually asymmetrical), apex acute to acuminate, margin crenate-serrate with widely spaced teeth or rarely entire

Fruit

Inflorescence: solitary, axillary

Fruit: drupe, golden-brown to yellow, globose, often bilobed, 10-20mm

Reared insects

Diptera: Tephritidae, Lepidoptera

Drypetes gerrardii Hutch. (cont.)



Tephritidae, Carpophthoromyia probably sp. nov., female, dorsal aspect



Tephritidae, Carpophthoromyia probably sp. nov., female, lateral aspect

Drypetes gerrardii Hutch. (cont.)



Tortricidae, Cosmetra sp.

Ranunculaceae

1. *Clematis brachiata* Thunb.



Plant type and distribution

Shrubby climber, unarmed, latex absent
Forest margins, wooded grassland, bushland
Taita Hills collection site(s): Chawia Forest
Month(s) collected: AUG

Leaf

Arrangement: opposite
Type: imparipinnate
Description: Leaflets ovate, weakly lobed, base subcordate, apex acute or acuminate, margin crenate-dentate

Fruit

Inflorescence: panicle
Fruit: achene, tiny with up to 50mm long plumose style.

Reared insects

none

Rhamnaceae

1. *Berchemia discolor* (Klotzsch) Hemsl.



Plant type and distribution

Tree or shrub, unarmed, latex absent
Dry bushland, rocky hillsides, riverine
Taita Hills collection site(s): base of Mbololo Mountain, base of Kasigau Mountain
Month(s) collected: FEB, MAR

Leaf

Arrangement: (sub)opposite
Type: simple
Description: Leaves elliptic or obovate, base cuneate or rounded, apex rounded, blunt or acute, margin entire

Fruit

Inflorescence: solitary or few-flowered fascicle
Fruit: drupe, yellow or pinkish, ovoid, 12-20mm

Reared insects

Hymenoptera, Lepidoptera

Berchemia discolor (Klotzsch) Hemsl. (cont.)



Pyralidae, Phycitinae sp. 1 female



Pyralidae, Phycitinae sp. 1 male

Berchemia discolor (Klotzsch) Hemsl. (cont.)



Pyralidae, Phycitinae sp. 2



Braconidae, Braconinae, Bracon sp., female

Berchemia discolor (Klotzsch) Hemsl. (cont.)



Braconidae, Cheloninae, prob. Phaedrotoma sp., male



Eurytomidae sp. 1, female

***Berchemia discolor* (Klotzsch) Hemsl. (cont.)**



Eurytomidae sp. 2, female

2. *Maesopsis eminii* Engl.



Plant type and distribution

Tree, unarmed, latex absent

Rain forest or riverine forest

Taita Hills collection site(s): Chawia Forest

Month(s) collected: NOV

Leaf

Arrangement: (sub)opposite

Type: simple

Description: Leaves elliptic or ovate, base cuneate to subcordate, apex acuminate, blunt or acute, margin toothed

Fruit

Inflorescence: solitary or few-flowered fascicle

Fruit: drupe, purple or yellow, slightly obovoid, 22-30mm

Reared insects

none

3. *Ziziphus mucronata* Willd.



Plant type and distribution

Shrub or tree, young branches with thorns at the nodes, latex absent
Bushland, woodland, wooded grassland, also along luggas
Taita Hills collection site(s): Ronge Nyika, low elevation woodland near Mwatate
Month(s) collected: FEB, MAY

Leaf

Arrangement: alternate
Type: simple
Description: Leaves ovate, base rounded or cordate, often asymmetrical, apex acuminate, acute, or obtuse, margin serrulate

Fruit

Inflorescence: cyme
Fruit: drupe, yellow or red-brown, globose, 10-20mm

Reared insects

Coleoptera (Image not available), Hymenoptera, Lepidoptera

Ziziphus mucronata Willd. (cont.)



Pyralidae, Phycitinae sp.



Eulophidae, Tetrastichinae, Aprostocetus sp.

4. *Ziziphus pubescens* Oliv.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Bushland, woodland, riverine and swamp forest
Taita Hills collection site(s): base of Mbololo Mountain
Month(s) collected: MAR

Leaf

Arrangement: alternate
Type: simple
Description: Leaves ovate, base rounded, somewhat asymmetrical, apex acute or shortly acuminate, margin serrulate

Fruit

Inflorescence: cyme
Fruit: drupe, yellow or red, globose, 7-10mm

Reared insects

Lepidoptera

Ziziphus pubescens Oliv. (cont.)



Tortricidae, Thaumatotibia leucotreta, female



Tortricidae, Thaumatotibia leucotreta, male

Rosaceae

1. *Eriobotrya japonica* (Thunb.) Lindl.



Plant type and distribution

Exotic shrub or tree, naturalized in places, unarmed, latex absent
Farmland, woodland
Taita Hills collection site(s): on farm, Wundanyi-Fururu road
Month(s) collected: AUG

Leaf

Arrangement: alternate, clumped at ends of branches
Type: simple
Description: Leaves elliptic, base cuneate, apex acute, margin serrate toward tip

Fruit

Inflorescence: panicle
Fruit: drupe, yellow, globose or obovate, ca. 20-35mm

Reared insects

Diptera: Tephritidae

Eriobotrya japonica (Thunb.) Lindl. (cont.)



Tephritidae, Ceratitis species nov. near rosa, female



Tephritidae, Ceratitis species nov. near rosa, male

2. *Prunus africana* (Hook.f) Kalkman



Plant type and distribution

Tree, unarmed, latex absent
Moist evergreen forest, riverine forest
Taita Hills collection site(s): near Ngangao Forest
Month(s) collected: MAY

Leaf

Arrangement: alternate
Type: simple
Description: Leaves ovate, elliptic, or obovate, base cuneate or rounded, apex obtuse to shortly acuminate, margin crenate-serrate

Fruit

Inflorescence: raceme
Fruit: drupe, purple-black or red, ellipsoid or subglobose, ca. 8-12mm

Reared insects

Lepidoptera (unidentified, no image)

3. *Rubus apetalus* Poir.



Rubus apetalus, with galled fruits

Plant type and distribution

Scrambling shrub, hooked prickles, latex absent
Forest margins, secondary bush/grassland
Taita Hills collection site(s): edge of Fururu forest, also road to Vuria Forest
Month(s) collected: JAN, JUL

Leaf

Arrangement: alternate
Type: compound, imparipinnate with 3-7 leaflets
Description: Leaflets ovate or elliptic, base cuneate to subcordate, apex acute, margin serrate

Fruit

Inflorescence: panicle
Fruit: crowded drupes, black, red or yellow, entire aggregation of drupes globose or ovoid ca. 11-15mm

Reared insects

Hymenoptera (from galled fruits)

Rubus apetalus Poir. (cont.)



Rubus apetalus, cross section of galled fruit with larvae attacking seeds



Rubus apetalus, cross section of galled fruit with larvae attacking seeds, Close up

Rubus apetalus Poir. (cont.)



Braconidae, Braconinae, Bracon sp 1, male, lateral aspect, ex galled fruit



Braconidae, Braconinae, Bracon sp. 1, female, ex galled fruit

Rubus apetalus Poir. (cont.)



Braconidae, Braconinae, Bracon sp. 2, female, dorsal aspect, ex galled fruit



Braconidae, Braconinae, Bracon sp. 2, female, lateral aspect, ex galled fruit

4. *Rubus pinnatus* Willd.



Plant type and distribution

Scrambling shrub, stems with hooked prickles, latex absent
Riverine, disturbed forest, forest margins
Taita Hills collection site(s): edge of Mbololo, Ngangao and Vuria
Forests
Month(s) collected: FEB, MAR, AUG

Leaf

Arrangement: alternate
Type: compound, imparipinnate with 5-9 leaflets
Description: Leaflets ovate, base cuneate, apex acute to acuminate, margin serrate

Fruit

Inflorescence: panicle
Fruit: crowded drupes, red to black, entire aggregation of drupes obovoid, to ca. 12mm

Reared insects

Diptera: Tephritidae

Rubus pinnatus Willd. (cont.)



Tephritidae, Ceratitis rubivora, female



Tephritidae, Ceratitis rubivora, male, with dark setae on mid femur and tibia

5. *Rubus rosifolius* Sm.



Plant type and distribution

Erect herb, stems with few prickles, latex absent
Riverine forest, moist forest
Taita Hills collection site(s): Chawia, Fururu, and Vuria Forests
Month(s) collected: JAN, FEB, AUG

Leaf

Arrangement: alternate
Type: compound, imparipinnate
Description: Leaflets ovate-elliptic, base round, apex acute to acuminate, margin serrate

Fruit

Inflorescence: panicle
Fruit: crowded drupes, minute (ca. 1 mm) scarlet red, entire aggregation of drupes globose to ellipsoid, to ca. 9-15mm

Reared insects

none

Rubiaceae

1. *Catunaregam nilotica* (Stapf) Tirveng.



Plant type and distribution

Shrub or tree with hard, sharp spines, latex absent
Grassland, bushland
Taita Hills collection site(s): Ronge Nyika, and also near base of Vuria Mountain
Month(s) collected: JAN, JUL

Leaf

Arrangement: opposite
Type: simple
Description: Leaves on spur shoots, obovate, base attenuate, apex rounded or emarginate, margin entire

Fruit

Inflorescence: cyme
Fruit: Drupe (berry?), yellow-brown, globose or ellipsoid, to ca. 13-25mm

Reared insects

Coleoptera, Hymenoptera, Lepidoptera

Catunaregam nilotica (Stapf) Tirveng. (cont.)



Alucitidae sp.



Curculionidae sp.

Catunaregam nilotica (Stapf) Tirveng. (cont.)



Braconidae, Cheloninae, Ascogaster or Chelonus sp.



Braconidae, Microgastrinae sp.

2. *Chamaepentas longituba* (K.Schum. ex Engl.) Kårehed & B.Bremer



Plant type and distribution

Erect herb, unarmed, latex absent

Moist forest

Taita Hills collection site(s): Mbololo Forest

Month(s) collected: AUG

Leaf

Arrangement: opposite

Type: simple

Description: Leaves ovate, base obtuse to round, apex acute or slightly acuminate, margin entire

Fruit

Inflorescence: terminal cluster

Fruit: capsule, greenish-purple, ovoid, 7-9mm

Reared insects

none

3. *Chassalia discolor* K.Schum. subsp. *taitensis* Verdc.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Moist evergreen Forests in Taita Hills
Taita Hills collection site(s): Chawia Forest
Month(s) collected: NOV
Rare, endemic to Taita Hills forests

Leaf

Arrangement: opposite
Type: simple
Description: Leaves obovate, base cuneate, apex acuminate, margin entire

Fruit

Inflorescence: panicle
Fruit: drupe, black, globose or lobed, ca. 8-12mm

Reared insects

none

4. *Chassalia parvifolia* K.Schum.



Plant type and distribution

Shrub, unarmed, latex absent
Evergreen moist forest, Taita Hills and Kasigau Mountain
Taita Hills collection site(s): Chawia Forest
Month(s) collected: NOV, DEC

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic, base cuneate, apex acuminate, margin entire

Fruit

Inflorescence: panicle
Fruit: drupe, black, globose or ellipsoid, ca. 4-6mm

Reared insects

Diptera: Tephritidae, Hymenoptera

Chassalia parvifolia K.Schum. (cont.)



Tephritidae, Trirhithrum meladiscum, female



Tephritidae, Trirhithrum meladiscum, male

Chassalia parvifolia K.Schum. (cont.)



Braconidae, Braconinae, Bracon sp., female



Braconidae, Braconinae, Bracon sp., male

5. *Coffea fadenii* Bridson



Plant type and distribution

Tree, unarmed, latex absent
Evergreen moist forest, Taita Hills
Taita Hills collection site(s): Ngangao
Month(s) collected: MAY, AUG
Rare, endemic to Taita Hills forests

Leaf

Arrangement: opposite
Type: simple
Description: Leaves broadly elliptic, cuneate or obtuse, apex obtuse or rounded, margin entire

Fruit

Inflorescence: single, axillary flowers
Fruit: drupe, brown, obovoid, ca. 14-20mm

Reared insects

Lepidoptera

Coffea fadenii Bridson (cont.)



Pyralidae, Phycitinae sp.

6. *Coptosperma graveolens* (S.Moore) Degreef



Plant type and distribution

Shrub or tree, unarmed, latex absent
Bushland on rocky hills, drier forest margins, bushed grassland
Taita Hills collection site(s): Base of Kasigau Mountain
Month(s) collected: APR

Leaf

Arrangement: opposite
Type: simple
Description: Leaves narrowly elliptic, base cuneate, apex obtuse to acuminate, margin entire

Fruit

Inflorescence: corymb
Fruit: berry, black, globose, ca. 6-7mm

Reared insects

Lepidoptera

***Coptosperma graveolens* (S.Moore) Degreef (cont.)**



Gelechiidae, Mesophleps nairobiensis

7. *Galiniera saxifraga* (Hochst.) Bridson



Plant type and distribution

Shrub or tree, unarmed, latex absent

Moist Forest

Taita Hills collection site(s): edge of Vuria Forest

Month(s) collected: FEB, DEC

Leaf

Arrangement: opposite

Type: simple

Description: Leaves elliptic, base cuneate, apex acuminate, margin entire

Fruit

Inflorescence: cyme

Fruit: berry or drupe, red, globose, ca. 7-9mm

Reared insects

none

Galiniera saxifraga (Hochst.) Bridson (cont.)



Galiniera saxifraga, closeup with flower

8. *Galium brenanii* Ehrend. & Verdc.



Plant type and distribution

Herbaceous climber, with tiny “sticky” prickles, latex absent
Moist Forest
Taita Hills collection site(s): edge of Vuria Forest
Month(s) collected: MAY, JUL, NOV
Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: in whorls
Type: simple
Description: Leaves elliptic, base cuneate, apex acute, margin with recurved small teeth

Fruit

Inflorescence: solitary axial flowers
Fruit: berry, black, subglobose, often lobed, ca. 7-9mm

Reared insects

Non-tephritid Diptera

Galium brenanii Ehrend. & Verdc.(cont.)



Lauxaniidae sp. 1



Lauxaniidae sp. 2

9. *Hymenodictyon parvifolium* Oliv.



Plant type and distribution

Shrub or tree, unarmed, latex absent

Dry bush- or woodland

Taita Hills collection site(s): base of Kasigau Mountain

Month(s) collected: MAR

Leaf

Arrangement: opposite

Type: simple

Description: Leaves elliptic, base cuneate, apex obtuse to acute, margin entire

Fruit

Inflorescence: panicle

Fruit: capsule, red-brown, lenticellate, ellipsoid, ca. 12-16mm

Reared insects

none

10. *Keetia gueinzii* (Sond.) Bridson



Plant type and distribution

Woody climber, unarmed, latex absent
Moist forest margins, secondary bushland, riverine forest
Taita Hills collection site(s): Ngangao Forest
Month(s) collected: OCT

Leaf

Arrangement: opposite
Type: simple
Description: Leaves ovate or elliptic, base subcordate, apex acuminate, margin entire

Fruit

Inflorescence: axillary cyme
Fruit: drupe, green to black, subglobose, sometimes 2-lobed, ca. 7-10mm

Reared insects

none

11. *Oxyanthus speciosus* DC. subsp. *stenocarpus* (K.Schum.) Bridson



Plant type and distribution

Shrub or tree, unarmed, latex absent
(Riverine) forest

Taita Hills collection site(s): Ngangao and Chawia Forests

Month(s) collected: APR, MAY, AUG, DEC

Leaf

Arrangement: opposite

Type: simple

Description: Leaves elliptic, base cuneate to rounded, apex acuminate, margin entire

Fruit

Inflorescence: panicle

Fruit: berry, yellow, ellipsoid, 30-60mm

Reared insects

Diptera: Tephritidae, non-tephritid Diptera, Lepidoptera

Oxyanthus speciosus DC. subsp. *stenocarpus* (K.Schum.)
Bridson (cont.)



Crambidae, Spilomelinae, Prophantis smaragdina, dark form



Crambidae, Spilomelinae, Prophantis smaragdina, light form

Oxyanthus speciosus DC. subsp. *stenocarpus* (K.Schum.)
Bridson (cont.)



Tortricidae, Thaumatotibia batrochopa



Lonchaeidae sp.

***Oxyanthus speciosus* DC. subsp. *stenocarpus* (K.Schum.)
Bridson (cont.)**



Tephritidae, Ceratitis cornuta, male



Tephritidae, Ceratitis cornuta, female

12. *Pauridiantha paucinervis* (Hiern) Bremek.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Moist forest
Taita Hills collection site(s): Mbololo Forest
Month(s) collected: AUG

Leaf

Arrangement: opposite
Type: simple
Description: Leaves narrowly elliptic, base cuneate, apex acuminate, margin entire

Fruit

Inflorescence: axillary cyme
Fruit: berry, brown or purplish, subglobose, 3-6mm

Reared insects

none

13. *Pavetta cf. crebrifolia* Hiern



Plant type and distribution

Shrub, unarmed, latex absent
Forest, bushland or thicket
Taita Hills collection site(s): Forest on Kasigau Mountain
Month(s) collected: AUG

Leaf

Arrangement: opposite
Type: simple
Description: Leaves with nodules, elliptic to slightly obovate, base cuneate, apex acute, margin entire

Fruit

Inflorescence: corymb
Fruit: drupe, black, globose, with persistent calyx, 8-11 mm

Reared insects

none

14. *Pavetta teitana* K.Schum.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Rock crevices or rocky riverine forest
Taita Hills collection site(s): Base of Kasigau Mountain
Month(s) collected: MAY
Kenyan endemic

Leaf

Arrangement: opposite
Type: simple
Description: Leaves narrowly elliptic, base cuneate, apex acute or slightly acuminate, margin entire

Fruit

Inflorescence: corymb
Fruit: drupe, purple-black, globose, 7-9mm

Reared insects

none

15. *Psychotria alsophila* K.Schum.



Plant type and distribution

Shrub, unarmed, latex absent

Moist forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: MAY

Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: opposite

Type: simple

Description: Leaves narrowly elliptic with conspicuous nodules on leaf blade, base cuneate, apex acute or obtuse, margin entire

Fruit

Inflorescence: panicle

Fruit: drupe, red, globose or subglobose, 5-8mm

Reared insects

Diptera: Tephritidae, Hymenoptera, Lepidoptera

Psychotria alsophila K.Schum. (cont.)



Tephritidae, Trirhithrum meladiscum, female



Tephritidae, Trirhithrum meladiscum, male

***Psychotria alsophila* K.Schum. (cont.)**



Crambidae, Spilomelinae, Cangetta sp.



Eulophidae sp.

Psychotria alsophila K.Schum. (cont.)



Eurytomidae sp., male



Eurytomidae sp., female

16. *Psychotria capensis* (Eckl.) Vatke subsp. *riparia* (K.Schum. & K.Krause) Verdc.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Riverine forest, woodland
Taita Hills collection site(s): road to Sagalla Forest at 1250 mASL
Month(s) collected: JUL

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic or slightly obovate with domatia along midrib, base cuneate, apex acute or shortly acuminate, margin entire

Fruit

Inflorescence: panicle
Fruit: drupe, red, globose, 6-8mm

Reared insects

Diptera: Tephritidae, Hymenoptera

***Psychotria capensis* (Eckl.) Vatke subsp. *riparia*
(K.Schum. & K.Krause) Verdc. (cont.)**



Tephritidae, Trirhithrum meladiscum, male



Tephritidae, Trirhithrum meladiscum, female

***Psychotria capensis* (Eckl.) Vatke subsp. *riparia*
(K.Schum. & K.Krause) Verdc. (cont.)**



*Tephritidae, Trirhithrum probably sp. nov., male, or unknown male
of T. divisum*



Braconidae sp., female

***Psychotria capensis* (Eckl.) Vatke subsp. *riparia*
(K.Schum. & K.Krause) Verdc.(cont.)**



Eurytomidae sp., male



Eurytomidae sp., female

***Psychotria capensis* (Eckl.) Vatke subsp. *riparia*
(K.Schum. & K.Krause) Verdc.(cont.)**



Pteromalidae sp.

17. *Psychotria kirkii* Hiern



Plant type and distribution

Shrub, unarmed, latex absent
Forest margins, bushland, wooded grassland
Taita Hills collection site(s): Ngangao Forest and near base of
Mbololo Mountain
Month(s) collected: MAR, APR

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic or (ob)ovate with many nodules on the
leaf blade, base cuneate, apex acute or shortly acuminate, margin
entire

Fruit

Inflorescence: panicle or groups of umbels
Fruit: drupe, orange or red, globose, 5-8mm, or 2-lobed

Reared insects

none

18. *Psychotria lauracea* (K.Schum.) E.M.A.Petit



Plant type and distribution

Shrub or tree, unarmed, latex absent
Moist evergreen forest
Taita Hills collection site(s): Chawia, Kasigau and Ngangao Forests
and on Ngangao-Fururu road
Month(s) collected: FEB, MAR, APR, MAY, AUG, OCT

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic or ovate, base cuneate or rounded, apex acute or obtusely acuminate, margin entire

Fruit

Inflorescence: panicle with characteristically flattened or winged peduncle
Fruit: drupe, red, globose, 4-8mm

Reared insects

Diptera: Tephritidae, Hymenoptera

Psychotria lauracea (K.Schum.) E.M.A.Petit (cont.)



Tephritidae, Trirhithrum meladiscum, female



Tephritidae, Trirhithrum meladiscum, male

Psychotria lauracea (K.Schum.) E.M.A.Petit (cont.)



Braconidae, Braconinae, Bracon sp., male



Braconidae, Cheloninae, maybe Microchelonus, male

***Psychotria lauracea* (K.Schum.) E.M.A.Petit (cont.)**



Braconidae, Opiinae, Psyttalia sp., male

19. *Psychotria petitii* Verdc.



Plant type and distribution

Shrub or tree, unarmed, latex absent

Moist evergreen forest

Taita Hills collection site(s): Ngangao and Vuria Forests

Month(s) collected: FEB, APR, MAY, AUG, OCT, NOV

Rare, endemic to Taita Hills forests

Leaf

Arrangement: opposite

Type: simple

Description: Leaves elliptic, base cuneate, apex shortly acuminate, margin entire

Fruit

Inflorescence: panicle

Fruit: drupe, red, globose, 11-18mm

Note: A similar plant, but with a very much smaller fruit (5-6mm) occurs only in Vuria Forest. Verdcourt considers this a form of *P. petitii* but Faden and Beentje consider it a new species. Four collections of this plant from Vuria Forest and two collections of typical *P. petitii* from Ngangao Forest are included here.

Reared insects

Coleoptera, Diptera: Tephritidae, Hymenoptera, non-tephritid Diptera

Psychotria petitii Verdc. (cont.)



Psychotria petitii, small fruit form



Psychotria petitii, small fruit form

Psychotria petiti Verdc. (cont.)



Curculionidae sp., dorsal aspect



Curculionidae sp., lateral aspect

Psychotria petiti Verdc. (cont.)



Tephritidae, Trirhithrum meladiscum, female



Tephritidae, Trirhithrum meladiscum, male

Psychotria petiti Verdc. (cont.)



Tephritidae, Trirhithrum nigerimum, female



Tephritidae, Trirhithrum nigerimum, male

Psychotria petiti Verdc. (cont.)



Lauxaniidae sp.



Mycetophilidae sp.

Psychotria petiti Verdc. (cont.)



Braconidae, Braconinae, prob. Bracon sp., female



Braconidae, Opiinae, Psyttalia sp., female

Psychotria petiti Verdc. (cont.)



Eurytomidae sp., male



Pteromalidae sp.

Psychotria petiti Verdc. (cont.)



Eulophidae, Tetrastichinae, Aprostocetus sp.



Eulophidae sp.

20. *Psychotria pseudoplatyphylla* E.M.A.Petit



Plant type and distribution

Shrub or tree, unarmed, latex absent
Moist evergreen forest
Taita Hills collection site(s): Fururu, Ngangao and Vuria Forests
Month(s) collected: APR, NOV, DEC
Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic, base cuneate, apex acute to shortly acuminate, margin entire

Fruit

Inflorescence: panicle
Fruit: drupe, red, globose, grooved, 5-10mm

Reared insects

Diptera: Tephritidae, Hymenoptera, Lepidoptera

Psychotria pseudoplatyphylla E.M.A.Petit (cont.)



Tephritidae, Trirhithrum meladiscum, female



Tephritidae, Trirhithrum meladiscum, male

Psychotria pseudoplatyphylla E.M.A.Petit (cont.)



Crambidae, Spilomelinae, Cangetta sp.



Braconidae, Braconinae, Bracon, female

21. *Rytigynia eickii* (K.Schum. & K.Krause) Bullock



Plant type and distribution

Shrub, unarmed, latex absent
Forest margins, rocky bushland
Taita Hills collection site(s): Ngangao Forest
Month(s) collected: MAY

Leaf

Arrangement: opposite
Type: simple
Description: Leaves elliptic, base cuneate, apex bluntly acuminate, margin entire

Fruit

Inflorescence: cyme
Fruit: drupe, black, 1 or 2-lobed, 11-15mm

Reared insects

none

22. *Tennantia sennii* (Chiov.) Verdc. & Bridson



Plant type and distribution

Shrub, unarmed, latex absent
Dry bushland or woodland
Taita Hills collection site(s): base of Kasigau Mountain
Month(s) collected: MAR

Leaf

Arrangement: opposite
Type: simple
Description: Leaves on very short spurs, elliptic or narrowly obovate, base cuneate, apex rounded, margin entire

Fruit

Inflorescence: cyme
Fruit: berry or drupe, black, globose, 5-6mm, crowned by persistent calyx

Reared insects

none

23. *Vangueria volkensii* K.Schum.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Dry forest margins, riverine forest
Taita Hills collection site(s): Chawia Forest
Month(s) collected: JUL

Leaf

Arrangement: opposite
Type: simple
Description: Leaves ovate or elliptic, base cuneate to subcordate, apex acuminate, margin entire

Fruit

Inflorescence: cyme
Fruit: berry, brown, subglobose, 20-25mm

Reared insects

Lepidoptera

***Vangueria volkensis* K.Schum. (cont.)**



Tortricidae, Cosmetra probably sp. nov.

Rutaceae

1. *Toddalia asiatica* (L.) Lam.



Plant type and distribution

Climber or liana, with sharp, hooked prickles, latex absent
Forest margins and secondary regrowth, also grassland thickets
Taita Hills collection site(s): below Mbololo Forest
Month(s) collected: MAR, JUL

Leaf

Arrangement: alternate
Type: compound, trifoliolate
Description: leaflets elliptic or slightly obovate, base cuneate, apex obtusely acuminate, margin entire or crenulate

Fruit

Inflorescence: axial and terminal panicles
Fruit: drupe, orange, globose or subglobose, 7-12mm

Reared insects

Lepidoptera, **image not available**

2. *Vepris fadenii* (Kokwaro) Mziray



With unripe fruits



Ripe fruits

Plant type and distribution

Shrub or tree, unarmed, latex absent

Moist forest or thicket on rocky hills

Taita Hills collection site(s): Kasigau and Mbololo Forests

Month(s) collected: MAY, OCT

Endemic to Kenya

Leaf

Arrangement: alternate

Type: compound, trifoliolate

Description: leaflets elliptic or slightly obovate, base cuneate, apex obtuse to acute (acuminate), margin entire

Fruit

Inflorescence: panicle

Fruit: berry, yellow, ellipsoid, 18-30mm

Reared insects

Coleoptera, Diptera: Tephritidae, Hymenoptera, Lepidoptera

Vepris fadenii (Kokwaro) Mziray (cont.)



Tortricidae, Dracontogena continentalis



Tortricidae, Lobesia vanillana

Vepris fadenii (Kokwaro) Mziray (cont.)



Tortricidae, Thaumatotibia leucotreta, female



Tortricidae, Thaumatotibia leucotreta, male

Vepris fadenii (Kokwaro) Mziray (cont.)



Tortricidae, Cosmetra sp.



Elachistidae, Blastobasinae, Blastobasis species nov.

Vepris fadenii (Kokwaro) Mziray (cont.)



Curculionidae sp., lateral aspect



Curculionidae sp., dorsal aspect

Vepris fadenii (Kokwaro) Mziray (cont.)



Coleoptera sp.



Nitidulidae sp.

***Vepris fadenii* (Kokwaro) Mziray (cont.)**



Nitidulidae sp. 2



Tephritidae, *Ceratitis cristata* male

Vepris fadenii (Kokwaro) Mziray (cont.)



Braconidae sp.



Pteromalidae sp.

3. *Vepris simplicifolia* (Engl.) Mziray



Plant type and distribution

Shrub or tree, unarmed, latex absent
Dry forest and woodland, riverine thicket, rocky bushland
Taita Hills collection site(s): Ronge Nyika and near Viruga town
Month(s) collected: MAY, NOV

Leaf

Arrangement: alternate
Type: simple
Description: leaves elliptic or (ob)ovate, base cuneate, apex rounded to acuminate, margin entire

Fruit

Inflorescence: panicle
Fruit: drupe, orange or red, globose or ellipsoid, 6-10mm

Reared insects

Coleoptera (image not available), Hymenoptera

***Vepris simplicifolia* (Engl.) Mziray (cont.)**



Braconidae, Braconinae, probably Bracon sp.

4. *Vepris uguenensis* Engl.



Plant type and distribution

Shrub, unarmed, latex absent

Rocky bush- or woodland

Taita Hills collection site(s): Ronge Nyika

Month(s) collected: JAN

Leaf

Arrangement: alternate

Type: compound, 3-foliolate

Description: leaflets narrowly elliptic, base cuneate, apex obtuse or acute (retuse), margin entire

Fruit

Inflorescence: axillary raceme

Fruit: drupe, orange, ellipsoid, ovoid, or globose, 8-11mm

Reared insects

None

Salicaceae

1. *Dovyalis abyssinica* (A.Rich) Warb.



Plant type and distribution

Shrub or tree, sometimes with axillary spines, latex absent
Upland moist or dry forest margins, evergreen bushland, riverine
Taita Hills collection site(s): Vuria Forest edge
Month(s) collected: APR, MAY

Leaf

Arrangement: alternate
Type: simple
Description: leaves ovate or elliptic, base cuneate (rarely rounded),
apex rounded or obtuse, margin entire to weakly serrate

Fruit

Inflorescence: 1- to 3-flowered fascicles
Fruit: berry, orange, red or yellow, globose or subglobose, to ca.
20mm

Reared insects

Hymenoptera

***Dovyalis abyssinica* (A.Rich) Warb. (cont.)**



Braconidae, Alysiinae, Allysiini sp., female

2. *Dovyalis caffra* (Hook.f. & Harv.) Hook.f.



Plant type and distribution

Shrub or tree, with spines, latex absent
Upland moist or dry forest margins, evergreen bushland, riverine
Taita Hills collection site(s): edge of Ngangao Forest, and Mwatate area on small farm
Month(s) collected: FEB

Leaf

Arrangement: on spurs
Type: simple
Description: leaves elliptic to obovate, base cuneate, apex obtuse

Fruit

Inflorescence: solitary (?) flowers
Fruit: berry, yellow, globose, to ca. 25mm

Reared insects

Diptera: Tephritidae

Dovyalis caffra (Hook.f. & Harv.) Hook.f. (cont.)



Tephritidae, Ceratitis species nov. near rosa, male



Tephritidae, Ceratitis species. nov. near rosa, female

***Dovyalis caffra* (Hook.f. & Harv.) Hook.f. (cont.)**



Tephritidae, Bactrocera dorsalis, female

3. *Ludia mauritiana* J.F.Gmel.



Plant type and distribution

Tree, unarmed, latex absent

Dry evergreen forest, riverine forest

Taita Hills collection site(s): below Mbololo Forest

Month(s) collected: MAR

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic or obovate, base cuneate, apex obtuse, rounded or acute, margin entire

Fruit

Inflorescence: solitary, mostly axillary flowers

Fruit: berry, red, subglobose, apex pointed, 10-15mm

Reared insects

Diptera: Tephritidae

Ludia mauritiana J.F.Gmel. (cont.)



Tephritidae, Ceratitis capitata, female



Tephritidae, Ceratitis capitata, male

Sapindaceae

1. *Pancovia golungensis* (Hiern) Exell & Mendonça



Plant type and distribution

Tree, unarmed, latex absent
Kasigau Forest and various coastal forests
Taita Hills collection site(s): Kasigau Forest
Month(s) collected: OCT

Leaf

Arrangement: alternate
Type: compound, paripinnate
Description: leaflets elliptic, base cuneate, apex acuminate, margin entire

Fruit

Inflorescence: raceme
Fruit: of 1-3 drupelets, green (?), ellipsoid, 10-25mm

Reared insects

Coleoptera, Hymenoptera, Lepidoptera

Pancovia golungensis (Hiern) Exell & Mendonça (cont.)



Tortricidae, Grapholitini sp.



Gelechiidae sp.

Pancovia golungensis (Hiern) Exell & Mendonça



Curculionidae sp.



Braconidae, probably Homolobinae sp.

2. *Pappea capensis* Eckl. & Zeyh.



Plant type and distribution

Shrub or tree, unarmed, latex absent
Rocky sites in bush- or grassland
Taita Hills collection site(s): Ronge Nyika
Month(s) collected: JUL

Leaf

Arrangement: alternate
Type: simple
Description: leaves usually on short shoots, elliptic, base rounded to subcordate and unequal, apex rounded or emarginate, margin entire or serrate

Fruit

Inflorescence: raceme
Fruit: capsule, pinkish, globose, 8-10 mm

Reared insects

Lepidoptera

Pappea capensis Eckl. & Zeyh. (cont.)



Lycaenidae, Probably Deudorix dinochaes, female



Lycaenidae, Probably Deudorix dinochaes, male

Pappea capensis Eckl. & Zeyh. (cont.)



Pyralidae, Phycitinae sp.



Tortricidae, Grapholitini sp.

Sapotaceae

1. *Chrysophyllum gorungosanum* Engl.



Plant type and distribution

Tree, unarmed, latex present

Moist forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: AUG

Leaf

Arrangement: alternate

Type: simple

Description: leaves silvery-brown underneath, elliptic, base cuneate, apex acute or shortly acuminate, margin entire

Fruit

Inflorescence: axillary, subsessile

Fruit: berry, reddish brown, ellipsoid or globose, ca. 20-40mm

Reared insects

Lepidoptera

Chrysophyllum gorungosanum Engl. (cont.)



Tortricidae, Eucosmini, Concinocordis wilsonarum

2. *Englerophytum natalense* (Sond.) T.D.Penn.



Plant type and distribution

Tree, unarmed, latex present
Moist or dry evergreen forest
Taita Hills collection site(s): Mbololo Forest
Month(s) collected: OCT

Leaf

Arrangement: alternate
Type: simple
Description: leaves elliptic or slightly obovate, base cuneate, apex obtuse or acuminate, margin entire

Fruit

Inflorescence: axillary, subsessile
Fruit: berry, red, ellipsoid, acute, to ca. 35mm

Reared insects

none

3. *Pouteria adolfi-friederici* (Engl.) A.Meeuse subsp. *usambarensis* (J.H.Hemsl.) L.Gaut.



Plant type and distribution

Tree, unarmed, latex present

Moist forest

Taita Hills collection site(s): Ngangao Forest

Month(s) collected: AUG

Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic, base cuneate, apex acute or obtuse, margin entire

Fruit

Inflorescence: axillary fascicle

Fruit: berry, green, ellipsoid with a short beak, ca. 18-30mm

Reared insects

none

Simaroubaceae

1. *Brucea antidysenterica* J.F.Mill.



Plant type and distribution

Tree, unarmed, latex absent

Dry or moist forest

Taita Hills collection site(s): Chawia, Ngangao, and Vuria Forests

Month(s) collected: AUG, NOV

Leaf

Arrangement: alternate

Type: compound, imparipinnate

Description: leaflets elliptic or ovate, base asymmetric, apex subacute, margin entire

Fruit

Inflorescence: spike

Fruit: drupe, red, ovoid to obovoid, 10-12mm

Reared insects

none

2. *Harrisonia abyssinica* Oliv.



Plant type and distribution

Shrub (sometimes climbing) or tree, with straight or recurved spines, latex absent

Dry bushland, wooded grassland, or riverine

Taita Hills collection site(s): near base of Mbololo Mountain

Month(s) collected: MAR

Leaf

Arrangement: alternate

Type: compound, imparipinnate, with winged racchis

Description: leaflets elliptic or obovate, base asymmetrically cuneate, apex subacute or rounded, margin crenate

Fruit

Inflorescence: panicle

Fruit: berry, red, globose, 8-11 mm

Reared insects

Diptera: Tephritidae

Harrisonia abyssinica Oliv. (cont.)



Tephritidae, Ceratitis capitata, female



Tephritidae, Ceratitis capitata, male

Solanaceae

1. *Solanum aculeatissimum* Jacq.



Plant type and distribution

Small shrub with straight spines on stems and leaf veins, latex absent
Clearings in high elevation wet forest
Taita Hills collection site(s): Chawia and Fururu forests
Month(s) collected: JAN, MAR, NOV

Leaf

Arrangement: alternate
Type: Simple, deeply 5-7 lobed
Description: leaf outline ovate, base subcordate and asymmetrical, apex obtuse to acute, margin with broad and widely-spaced "teeth"

Fruit

Inflorescence: axillary umbel, flowers white or pale purple
Fruit: berry, yellow, ellipsoid or ovoid, ca. 18-25mm

Reared insects

None

***Solanum aculeatissimum* Jacq. (cont.)**



Solanum aculeatissimum flower

2. *Solanum anguivi* Lam.



Plant type and distribution

Shrub, with straight or curved thorns, latex absent
Forest margins, thickets, secondary forest
Taita Hills collection site(s): Fururu and Vuria Forests
Month(s) collected: FEB, APR, NOV, DEC

Leaf

Arrangement: alternate
Type: simple
Description: leaves ovate, base asymmetric, apex obtuse to acute, margin entire or (pinnately) lobed

Fruit

Inflorescence: raceme
Fruit: berry, orange, globose, 7-11mm

Reared insects

none

3. *Solanum schumannianum* Dammer



Plant type and distribution

Shrub, unarmed, latex absent
Moist forest (remnants)
Taita Hills collection site(s): Vuria Forest
Month(s) collected: JAN, APR, JUL, AUG, OCT, NOV

Leaf

Arrangement: alternate
Type: simple
Description: leaves elliptic, base cuneate, apex acute or acuminate, margin entire or lobed

Fruit

Inflorescence: corymb
Fruit: berry, red, globose, 6-10mm

Reared insects

Diptera: Tephritidae, Hymenoptera

Solanum schumannianum Dammer (cont.)



Tephritidae, Ceratitis marriotti, female, lateral aspect



Tephritidae, Ceratitis marriotti, female, dorsal aspect

***Solanum schumannianum* Dammer (cont.)**



Eulophidae, Tetrastichus sp.

4. *Solanum terminale* Forssk.



Plant type and distribution

Climber or liana, unarmed, latex absent
Forest margins, riverine forest, thickets, bush-/ woodland
Taita Hills collection site(s): Chawia, Mbololo and Ngangao Forests,
also road to Fururu Forest
Month(s) collected: JAN, MAR, APR, OCT

Leaf

Arrangement: alternate
Type: simple
Description: leaves ovate or elliptic, base cuneate, apex obtuse to
acuminate, margin entire

Fruit

Inflorescence: terminal panicle
Fruit: berry orange or red, globose, 4-10mm

Reared insects

Diptera: Tephritidae, Hymenoptera, Lepidoptera

Solanum terminale Forssk. (cont.)



Tephritidae, Trirhithrum overlaeti



Tephritidae, Trirhithrum homogeneousum

Solanum terminale Forssk. (cont.)



Tortricidae, Lobesia vanillana



Braconidae, Braconinae, probably Bracon sp., female

Solanum terminale Forssk. (cont.)



Braconidae, Microgastrinae sp., female



Braconidae, Braconinae, probably Bracon sp., male

Solanum terminale Forssk. (cont.)



Braconidae, Opiinae, Biosteres sp.



Braconidae, probably Opiinae sp., male

Solanum terminale Forssk. (cont.)



Eulophidae, Tetrastichinae, probably Tetrastichus sp.

5. *Solanum* sp. probably *villosum* Mill. subsp. *miniatum* (Willd.) Edmonds



Plant type and distribution

Shrub, unarmed, latex absent

Variable weed (or cultivated plant) of cultivated land

Taita Hills collection site(s): Wundanyi-Fururu Forest road

Month(s) collected: DEC

Leaf

Arrangement: alternate

Type: simple

Description: leaves elliptic, base cuneate or attenuate, apex acute, margin entire or crenate or broadly toothed

Fruit

Inflorescence: umbel

Fruit: berry, red or orange, globose, 7-11mm

Reared insects

none

Thymeleaceae

1. *Dicranolepis usambarica* Gilg



Plant type and distribution

Shrub, unarmed, latex absent

Moist forest

Taita Hills collection site(s): Mbololo and Ngangao Forests

Month(s) collected: MAY, AUG, OCT

Endemic to forests of the Eastern Arc Mountains

Leaf

Arrangement: alternate

Type: simple

Description: leaves ovate or elliptic, base cuneate or obtuse, apex long-acuminate, margin entire

Fruit

Inflorescence: one or two axillary flowers

Fruit: berry (?), red, ellipsoid, 9-13mm

Reared insects

none

Dicranolepis usambarica Gilg (cont.)



Dicranolepis usambarica flowers

Urticaceae

1. *Urera hypselodendron* (Hochst. ex A.Rich) Wedd.



Plant type and distribution

Woody climber, unarmed, latex absent
Moist upland forest
Taita Hills collection site(s): Vuria Forest
Month(s) collected: APR

Leaf

Arrangement: alternate
Type: simple
Description: leaves elliptic or ovate, base rounded or cuneate, apex acuminate, margin serrate

Fruit

Inflorescence: panicle
Fruit: multiple, with fleshy sepals, orange, resembling very small *Rubus*, ca. 2-3mm

Reared insects

none

Verbenaceae

1. *Duranta erecta* L.



Plant type and distribution

Shrub or tree, exotic, naturalized, with or without axillary spines, latex absent

Riverine forest

Taita Hills collection site(s): near Fururu Forest

Month(s) collected: APR

Leaf

Arrangement: opposite

Type: simple

Description: leaves elliptic, base cuneate, apex acute or obtuse, margin entire or crenate

Fruit

Inflorescence: terminal raceme

Fruit: drupe, orange or yellow, subglobose with conical beak, ca. 6-9mm

Reared insects

Non-tephritid Diptera

***Duranta erecta* L. (cont.)**



Lauxaniidae sp

Vitaceae

1. *Cissus oliveri* (Engl.) Gilg



Plant type and distribution

Climber, unarmed, latex absent

Forest

Taita Hills collection site(s): Chawia Forest

Month(s) collected: DEC

Leaf

Arrangement: opposite

Type: simple

Description: leaves ovate, base cordate, often deeply, apex long-acuminate, margin dentate

Fruit

Inflorescence: umbel

Fruit: berry, dark red to purple, ellipsoid, apex often pointed, 7-10mm

Reared insects

none

2. *Cyphostemma* sp. probably *bambuseti* (Gilg & M.Brandt) Wild & R.B.Drumm.



Plant type and distribution

Climber, unarmed, latex absent

Upland forest edges

Taita Hills collection site(s): Chawia Forest

Month(s) collected: JUL

Leaf

Arrangement: alternate

Type: compound, 5-foliolate (digitate)

Description: leaflets obovate, base cuneate, apex acute, margin dentate

Fruit

Inflorescence: cyme

Fruit: berry, purple, globose, with short glands, 7-10mm

Reared insects

none



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