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Records of Tortricidae from the Afrotropical Region, with Descriptions of New Taxa (Lepidoptera: Tortricidae)

J. Razowski & J. W. Brown

Abstract

Two new genera (*Nkandla* Razowski & Brown, gen. n., and *Vacanara* Razowski & Brown, gen. n.) and five new species (*Neaspasia rhodesiae* Razowski & Brown, sp. n., *Vacanara caravanica* Razowski & Brown, sp. n., *Herpystis capeana* Razowski & Brown, sp. n., *Cosmetra neka* Razowski & Brown, sp. n., and *Cydia ibadena* Razowski & Brown, sp. n.) are described and illustrated from the Afrotropical region. The female genitalia of *Eccopsis ptilonota* (Meyrick) are described and illustrated for the first time. New records are provided for the following: *Accra viridis* (Walsingham), *Brachiolia amblopiis* (Meyrick), *Lozotaenia capensana* (Walker), *Metamesia episema* Diakonoff, *Eccopsis ptilonota* (Meyrick), *Lobesia vanillana* (Joannis), *Xenosocia paracremna* (Meyrick), and “*Argyroploce*” *calchantis* Meyrick.

KEY WORDS: Lepidoptera, Tortricidae, Afrotropical, new genera, new species, Uganda, South Africa, Seychelles, Zimbabwe [Rhodesia], Kenya, Nigeria.

Registros de Tortricidae de la Región Afrotropical, con descripción de nuevas taxa (Lepidoptera: Tortricidae)

Resumen

Se describen e ilustran de la región Afrotropical dos nuevos géneros (*Nkandla* Razowski & Brown, gen. n., and *Vacanara* Razowski & Brown, gen. n.) y cinco nuevas especies (*Neaspasia rhodesiae* Razowski & Brown, sp. n., *Vacanara caravanica* Razowski & Brown, sp. n., *Herpystis capeana* Razowski & Brown, sp. n., *Cosmetra neka* Razowski & Brown, sp. n., y *Cydia ibadena* Razowski & Brown, sp. n.). La genitalia de la hembra de *Eccopsis ptilonota* (Meyrick) se describe e ilustra por primera vez. Se aportan nuevos registros de las siguientes especies: *Accra viridis* (Walsingham), *Brachiolia amblopiis* (Meyrick), *Lozotaenia capensana* (Walker), *Metamesia episema* Diakonoff, *Eccopsis ptilonota* (Meyrick), *Lobesia vanillana* (Joannis), *Xenosocia paracremna* (Meyrick) y “*Argyroploce*” *calchantis* Meyrick.

PALABRAS CLAVE: Lepidoptera, Tortricidae, Afrotropical, nuevos géneros, nuevas especies, Uganda, África del sur, Seychelles, Zimbawe [Rhodesia], Kenia, Nigeria.

Introduction

Although the tortricid fauna of the Afrotropical region remains the poorest known of any major biogeographic realm, studies by AARVIK (2004a, 2004b, 2004c, 2005, 2008a, 2008b), RAZOWSKI (2002a, 2002b, 2004, 2005a, 2005b, 2006a, 2006b), and KARISCH (2005a, 2005b) have added significantly to our growing knowledge of the region over the past decade. Contributions by DIAKONOFF (1957a, 1957b, 1958, 1959a, 1959b, 1960, 1961, 1963a, 1963b, 1981, 1983, 1988a, 1988b, 1989a, 1989b) provide an overview of the tortricid fauna of Madagascar, and many generic concepts of the fauna of the Afrotropical region can be extracted from this large body of work. A recent

paper by RAZOWSKI & KRÜGER (2008) provides illustrations of the type specimens of many species described by Edward Meyrick from South Africa. While a broad picture of the fauna is beginning to emerge, a large percent of the fauna remains uncollected and undescribed. The purpose of this paper is to add to the growing base of knowledge through the descriptions of two new genera and five new species, and the presentation of new biological, distributional, or morphological data on eight additional species.

Material and methods

Dissection methods follow those presented in BROWN & POWELL (1991). Images of adults and genitalia were captured using a digital camera. Terminology for genitalia structures and forewing pattern elements follows RAZOWSKI (2002c). Depositories are abbreviated as follows: BMNH, The Natural History Museum, London, United Kingdom; MNHN, Museum National d'Historie Naturelle, Paris, France; TMSA, Transvaal Museum, Pretoria, South Africa; and USNM, National Museum of Natural History, Smithsonian Institution, Washington, DC, USA. Other abbreviations used in text are as follows: GS = genitalia slide; r. f. = reared from.

Systematics

Tortricini

Accra viridis (Walsingham, 1891)

Holotype: Male, Ghana: Gold Coast, Accra, Carter (BMNH).

Material examined: Uganda: Ankole, Kichwambia, 23-29-V-1968 (3 females), P. Spangler (USNM), GS USNM 121,445.

Remarks: *Accra viridis* was described from Ghana; the adult and male genitalia were illustrated later by RAZOWSKI (1966). The species has been recorded from Nigeria (NW State) and Cameroon (Mt. Cameroon) (RAZOWSKI, 1964, 1966); to that distribution we add Uganda.

Brachiolia amblopiis (Meyrick, 1911)

Holotype: Female, Seychelles: Aldabra, 1908, J. C. F. Fryer (BMNH).

Material examined: Seychelles: Aldabra Atol, Île Picard, Settlement, 12-22-III-1986 (2 males, 2 females), D. Adamski (USNM), GS USNM 121,440.

Remarks: *Eboda amblopiis* Meyrick was described from Aldabra (Seychelles); CLARKE (1958) illustrated the holotype female and its genitalia. RAZOWSKI (1964) transferred it to *Brachiolia* Razowski and subsequently (RAZOWSKI, 1966) provided illustrations of the male and female genitalia based on specimens from Comoro Island. RAZOWSKI (1966) and DIAKONOFF (1969) summarized its distribution, reporting it from Aldabra (Seychelles), Comoro Island, and Mauritius. Specimens we examined differ from those from Comoro Island by the weakly concave apex of the uncus and the slender ductus bursae. The series we examined also shows that this species is polymorphic in forewing pattern, typical of many Tortricini.

Archipini

Nkandla Razowski & Brown, gen. n.

Type species: *Cnephasia flavisecta* Meyrick, 1918.

Description: Head: Vertex rough scaled; frons smooth scaled, ocellus conspicuous, moderately large; labial palpus ca. 1.7 times diameter of compound eye, second segment dilated by scales, third segment slender, exposed; antenna about 0.5 length of forewing costa, unmodified, two rows of scales per flagellomere, sensory setae ca. 0.5-0.6 times width of flagellomere in male. Thorax: Dorsum

smooth scaled with conspicuous tegulae, without posterior crest. Legs unmodified. Forewing with costa gently arched, termen straight or slightly convex; length 4.0-4.5 mm (n = 3); venation with all veins present and separate, CuA2 originating ca. 0.6 length of discal cell; CuP absent, chorda and M-stem absent. Hindwing with Rs and M₁ short-stalked, CuP weak or absent.

Male genitalia (Figs. 1-2) with lateral parts of tegumen weakly sclerotized; uncus small, subtriangular, weakly sclerotized; socius short, attenuate distally, broad ventrobasally, sparsely hairy; gnathos arms slender, terminal plate long, curved; vinculum arms long; saccus well developed, slender; valva broad in basal 0.25, slender in distal 0.75, latter consisting of costal part of valva, with a ventral process near middle bearing a small patch of spines; sacculus sclerotized, convex, angulate; transtilla a simple band with broad basal parts; juxta broad; aedeagus (Fig. 2) slender, curved, with proximal opening of ductus ejaculatorius; caulis rudimentary; cornuti not observed (possibly deciduous). Female genitalia unknown.

Distribution: The single species *N. flavisecta* is known only from Natal, South Africa.

Biology: Nothing is known of the biology except for the dates of capture: January and March at an elevation of 1100 m.

Diagnosis: *Nkandla* are small Archpini, most similar to *Droceta* Razowski, 2006 and *Worcesteria* Razowski, 2006, both from South Africa. *Nkandla* can be distinguished from those two genera by having a small, subtriangular, weakly sclerotized uncus (that of *Droceta* has a large semicircular excavation distally and that of *Worcesteria* is broadly rectangular) and the costa of the valva well differentiated (only weakly sclerotized in *Droceta* and *Worcesteria*). Putative autapomorphies of *Nkandla* include the slender submedian socii and the ventral process of the postmedian part of the valva. The type-species of *Nkandla*, *Droceta*, and *Worcesteria* resemble some other Afrotropical species currently placed in “*Cnephasia*” (sensu lato), many of which also may deserve new generic assignments; they certainly have nothing in common with *Cnephasia* (sensu stricto).

Etymology: The generic name refers to the collecting locality of some of the specimens examined - Nkandla, Natal.

Nkandla flavisecta (Meyrick, 1918), **comb. n.**

Holotype: Male, South Africa: KwaZulu-Natal, Eshowe, 8-I-1916, A. J. T. Janse (TMSA).

Material examined: South Africa: Natal: Nkandla Forest, Natal, 1100 m, 2-3-III-1978 (3 males), D. & M. Davis & B. Akerbergs (USNM).

Remarks: MEYRICK (1918) described this species based on a male from Natal, South Africa. RAZOWSKI & KRÜGER (2007) illustrated the holotype and its genitalia under its original generic name, *Cnephasia*. The genitalia preparation illustrated by RAZOWSKI & KRÜGER (2007) is somewhat damaged, thus we illustrate the male again (Figs. 1, 2).

Nkandla flavisecta is a small species with a gold forewing ground color divided by a distinct brownish and leaden gray basal patch, a median fascia, and a weak subterminal fascia. For details of the morphology, see the description of the genus above.

Lozotaenia capensana (Walker, 1863)

Holotype: Male, South Africa: Cape Province (BMNH).

Material examined: South Africa: Cape Province: Table Mountain, east slope, 310 m, Kirstenbosch Botanical Gardens, fynbos, 23-III-1978 (1 male), D. & M. Davis & B. Ackenbergs (USNM), GS USNM 121,441. Brackenhill Falls, 9 km E Knysna, 175 m, 15-16-III-1979 (1 male), D. & M. Davis & B. Ackenbergs (USNM), GS USNM 121,442.

Remarks: *Teras capensana* Walker was described from Cape Province, South Africa. Host plants of the species (usually reported as *Tortrix capensana*) have been reported by several workers: TAYLOR (1957) cited *Chrysanthemoides monolifera* (L.) Norl. (Asteraceae), *Citrus* sp. (Rutaceae), *Fragaria* sp. (Rosaceae), *Passiflora tripartita* var. *mollissima* (Kunth) Holm-Niels. & P. Jorg. (Passifloraceae), and *Lycium ferocissimum* Miers (Solanaceae); KROON (1999) reported *Calendula* sp. (Asteraceae), *Senecio x hybrida* (= *Pericallis x hybrida* B. Nord.) (Asteraceae), and *Pinus radiata* D. Don

(Pinaceae); MYBURGH & BASSON (1961) listed *Malus* sp. (Rosaceae) and *Pyrus* sp. (Rosaceae); SWAIN & PRINSLOO (1986) reported *Pinus patula* Schiede ex Schltdl. & Cham. (Pinaceae); PINHEY (1975) reported *Tacsonia* sp. (Passifloraceae); and BEGENMANN & SCHOENMAN (1999) discussed damage to *Citrus* sp. (Rutaceae). BROWN (2005) included five synonyms under *Lozotaenia capensana*, but it is possible that some represent different species.

Metamesia episema Diakonoff, 1960

Holotype: Male, [Central] Madagascar: Ankaratra Range, Manjakatampo, Ambahona forest, 1850 m, 18-XII-1951, P. Viette (MNHN).

Material examined: Kenya: Ngong: Forestry Station, 1-7-II-1968 (1 male), malaise trap, K. Krombein & P. Spangler (USNM). South Africa: Cape Province: Cape Good Hope Nature Reserve, 7-10-III-1968 (20 males), P. Spangler (USNM). Hout Bay, nr. East Battery, fynbos, 40 m, 20-III-1978 (3 males), D. & M. Davis & B. Akerbergs (USNM). 3 km W Stormsrivierburg, near Big Tree, 250 m, 11-III-1978 (2 males), D. & M. Davis & B. Akerbergs (USNM). Sir Lowry's Pass, ca 22 km E Cape Town, fynbos, 484 m, 21-III-1978 (1 male), D. & M. Davis & B. Akerbergs (USNM). Natal: Lindeque Spruit, 14 km SE Bergville, 1050 m, 19-II-1978 (12 males), D. & M. Davis & B. Akerbergs (USNM). Nkandla Forest, 12 km S Nkandla, 1100 m, 2-3-III-1978 (1 male), D. & M. Davis & B. Akerbergs (USNM).

Remarks: DIAKONOFF (1960) described *Metamesia episema* based on a single male from central Madagascar. We examined a long series of specimens from South Africa (Natal and Cape Province) and a single specimen from Kenya that all appear to be this species. Collection sites range from about 40 to 1525 m elevation.

Olethreutini

Eccopsis ptilonota (Meyrick, 1921)

Holotype: Male, [South Africa, Gauteng]: Pretoria, 1-XII-1911, Paget (TMSA).

Material examined: South Africa: Cape Province: Diepwalle Plantation, 39 km NE Knysna, 500 m, 13-III-1978 (2 males, 3 females), D. & M. Davis & B. Akerbergs (USNM).

Description: Female genitalia (Fig. 10) with anteostial part of sterigma represented by slender sclerite bordering ostium bursae; postostial sterigma in form of a moderate sclerite with short rounded lateral arms and terminal median part; antrum sclerite fairly long; ductus bursae long, narrow, ca. 10 times as long as wide, with median sclerotization in form of two bands followed by granulate membranous region; signum small, with two blades.

Remarks: RAZOWSKI & KRÜGER (2007) transferred this species to *Eccopsis* based on the genitalia of the male holotype from Pretoria, South Africa, which they described and illustrated. The female previously was unknown, so we take this opportunity to describe and illustrate its genitalia.

Eccopsis ptilonota is somewhat variable in the dark forewing markings and the extent of greenish ground colour, the latter of which may fade. The male genitalia of specimens cited above differ slightly from those of the holotype in possessing a somewhat longer postbasal process of the valva and a slender, fairly long cornutus, which may be deciduous and lost from the holotype.

Lobesia vanillana (Joannis, 1900)

Syntypes: 5 males, 1 female, Reunion Island (MNHN).

Material examined: Seychelles: Aldabra Atoll, Île Picard Settlement, 12-22-III-1986 (38 males, 7 females), D. Adamski (USNM).

Remarks: This species was described from Reunion Island and is widely distributed in the Afrotropical region. DIAKONOFF (1992) described the synonym *Lobesia triacanthis* based on a single female from Madagascar reared from *Gleditsia triacanthos* L. (Fabaceae). Larvae of this species were reported from vanilla, *Vanilla planifolia* Andrews (Orchidaceae), by JOANNIS (1900) and DIAKONOFF (1969), and from *Mangifera* sp. (Anacardiaceae) by DIAKONOFF (1977). Based on reared specimens from Kenya (Brown, unpublished), *Lobesia vanillana* appears to be fairly polyphagous.

***Neaspasia rhodesiae* Razowski & Brown, sp. n.** (Fig. 14)

Holotype: Male, Rhodesia [Zimbabwe]: Victoria Falls National Park, 3-6-IV-1968, P. Spangler (USNM). Paratypes (5 males, 2 females). Rhodesia [Zimbabwe]: Victoria Falls National Park, 3-6-IV-1968 (1 male, 1 female), P. Spangler (USNM), GS USNM 121,432 and 121,430. Kenya: Ngong, 27-31-I-1968 (1 male), malaise trap, K. Krombein & P. Spangler (USNM), GS USNM 121,429. Ngong, Nairobi, May 1956 (1 male), Coulson (USNM), GS USNM 121,433. South Africa: Cape Province: Groebal R, Schoemanspoort, ca. 18 km Oudshoon, ca. 700 m, 17-III-1978 (1 female), D. & D. Davis & B. Akerbergs (USNM), GS USNM 121,432. Transvaal: 3 mi W Warmbad, 24-25-II-1968 (2 males), K. Krombein & P. Spangler (USNM).

Description: Head: Vertex rough scaled; upper frons rough scaled, lower frons smooth scaled; cream with apex grayish; ocellus conspicuous, moderately large; labial palpus porrect, ca. 1.7 times diameter of compound eye, second segment with dense scaling, third segment exposed; antenna about 0.45 length of forewing costa, unmodified, with one row of scales per flagellomere, sensory setae extremely short in both sexes. Thorax: Dorsum smooth scaled, grey, with posterior crest. Legs unmodified. Forewing (Fig. 14) length 4.2-4.5 mm; forewing with costa and termen gently convex; all veins present and separate, CuA₂ originating about 0.65 length of discal cell, CuP weak; chorda and M-stem absent; ground colour white with creamish suffusions; costal strigulae white, divisions cream grey; basal blotch blackish, somewhat convex posteriorly; termen suffused ochreous and grey with remnants of grey and brown markings; large, rounded olive grey marked brown and grey blotch in tornal area. Cilia brown grey. Hindwing pale brown-grey; Rs and M₁ very close and parallel in basal 0.33; M₁ and CuA₁ connate; male with CuP weak; cubital pecten present in both sexes; male with basal 0.4 of costa slightly thickened, with hairpencil of long, slender scales; male with conspicuous anal roll; male frenulum of one bristle, female of three. Cilia paler.

Male genitalia (Fig. 3) with uncus stout, rounded apically; socius broad, oval, setose; pedunculus with slender process; basal half of valva broad; sacculus with rounded caudal edge and long, almost perpendicular basal edge; large group of spines between caudal edge of sacculus and basal cavity; neck of valva slender, ventral cavity deep; cucullus subtriangular, densely spined ventrally, a single strong spine at ventral lobe; aedeagus mostly straight, slender apically.

Female genitalia (Fig. 11) with subgenital sternite short, well sclerotized, concave posteriorly; sterigma convexly rounded proximally, rather weakly concave posteriorly; ostium broad, concave, extending proximally into a long sclerite; base of ductus seminalis ventrally protected by a cingulum; ductus bursae slender, 7-8 times as long as wide; corpus bursae irregularly rounded with a pair of disk-shaped signa with conspicuous invaginations from wall of corpus bursae.

Diagnosis: *Neaspasia rhodesiae* is superficially very similar to *N. loxochlamys* Diakonoff, 1989 (type species) (adult and male genitalia illustrated by DIAKONOFF, 1989) with a distinctly two-toned forewing pattern, dark in the basal 0.4 and pale in the distal 0.6, with a dark termen. It is easily distinguished from *N. loxochlamys* by the anal roll of the male hindwing. The genitalia of the two species are similar, but those of *Neaspasia rhodesiae* have a slightly more spindle-shaped uncus (i. e., slightly narrowed basally) and a slender, more apically attenuate aedeagus.

Etymology: The specific epithet refers to the older name of country where most of the material was collected.

Remarks: Slight variation among the specimens in the male and female genitalia and forewing ground colour suggests that more than one species may be present in the material cited above.

***Vacanara* Razowski & Brown, gen. n.**

Type species: *Vacanara caravanica* sp. n.

Description: Head: Vertex rough scaled; labial palpus ca. 1.7 times diameter of compound eye, second segment dilated by scales, third segment exposed; antenna unmodified, two rows of scales per flagellomere, sensory setae inconspicuous; ocellus large. Thorax: Smooth scaled, without posterior tuft.

Legs unmodified. Forewing venation with all veins present and separate, CuA₂ originating ca. 0.55 length of discal cell, CuP weak at margin or absent; chorda and M-stem absent. Hindwing with Rs and M₁ separate, M₃ and CuA₁ connate, CuP weak or absent; cubital pectin present in both sexes; male frenulum with one bristle, female with three.

Male genitalia (Fig. 4) with uncus extremely short, broad, weakly sclerotized terminally, without spines, with a few ventral hairs; socius completely reduced; pedunculi long; gnathos arms short, terminal part forming broad sclerite connected with aedeagus by means of a short henion; valva broad proximally, distinctly concave beyond sacculus; cucullus slender with large group of setae at ventral lobe; spines of fold forming a dense group extending ventral to the group of ventral setae; aedeagus long, slender; coecum penis large, curved, directly proximally; caulis broad; juxta moderate.

Female genitalia (Fig. 12) with sterigma short, with large lateral lobes, small medioproximal sclerite and broad cup-shaped part; ductus bursae long, slender, with subterminal sclerite slender; corpus bursae irregularly narrow-pear-shaped, signum a small, shallow, scobinate cup.

Distribution: The genus is based on a single species from the Cape Province, South Africa.

Biology: Adults were collected in March at elevations of 175 and 244 m.

Diagnosis: Superficially, *Vacanara* somewhat resembles the Holarctic genera *Hedya* Hübner, [1825] and *Apotomis* Hübner, [1825]. The genitalia of *Vacanara* most resemble those of *Phiaris* Hübner, [1825] and *Celypha* Hübner, [1825] with similar groups of spines on the valva in the male, and a shallow, cup-shaped signum and conspicuous lateral lobes of the sterigma in the female. *Vacanara* can be distinguished from those genera by the strong aedeagus with a well developed, proximally curved coecum, reduced socii, the presence of a short henion, and elaborate lateral lobes of the valva. The genitalia also are somewhat similar to those of the Neotropical genus *Cacocharis* Walsingham, 1892 (see BROWN, 2008), but the latter has a strong, well sclerotized uncus and a small sterigma similar to that of *Hedya*.

Etymology: The name refers to the type locality of the type species and is an anagram of its name.

Vacanara caravanica Razowski & Brown, sp. n. (Fig. 15)

Holotype: Male, South Africa: Cape Province: Caravan Park, 244 m, Stormsrivierburg, 7-10-III-1978, D. & M. Davis & B. Akerbergs (USNM), GS USNM 121,419. Paratypes (6 males, 1 female). South Africa: Cape Province: Caravan Park, 244 m, Stormsrivierburg, 7-10-III-1978 (3 males), D. & M. Davis & B. Akerbergs (USNM), GS USNM 121,425. Brackenhill Falls, 9 km E Knysna, 175 m, 15-16-III-1978 (3 males), D. & M. Davis & B. Akerbergs (USNM), GS USNM 121,426. 3 km W Stormsrivierburg, near Big Tree, 250 m, 11-III-1978 (1 female), D. & M. Davis & B. Akerbergs (USNM), GS USNM 121,427.

Description: Head: Vertex pale gray-brown; upper frons copper-brown; lower frons white. Antenna pale orange brown with darker brown scale rows. Labial palpus pale copper brown, darker distally. Thorax: Dorsum mixed pale brown and white. Forewing length 7.5-8.5 mm (n = 7); forewing (Fig. 15) with basal half pale brown with some irregular darker brown strigulae and small patches of copper-brown scales, bordered distally by dark brown median fascia, broadest at costa, gradually narrowed to dorsum; distal one-fourth either white or pale brownish cream, with irregular darker brown terminal band. Hindwing grayish white.

Male genitalia (Fig. 4) as described above for genus. Female genitalia (Fig. 12) as described above for genus.

Diagnosis: *Vacanara caravanica* is the only species currently assigned to the genus. It superficially resembles *Argyroploce asterota* Meyrick, 1918 from Natal (see RAZOWSKI & KRÜGER, 2007) from which it can be distinguished by three features of the forewing: a more oblique termen, a large white posterior area, and a complete median fascia. *Argyroploce asterota* Meyrick is known only from the female holotype, and its genitalia are easily distinguished from those of *Vacanara caravanica*. In the lateral lobes of the sterigma includes a pair of broad, complex, laterally extending,

distally curved sclerites and a mesal sclerotized V-shaped region. In *A. asterota* the comparable region of the sterigma is comprised of a broad circular sclerite.

Etymology: The name refers to the type locality.

“*Argyroploce*” *calchantis* Meyrick, 1914 (Fig. 16)

Holotype: Female, Nyassaland [Malawi], Mt. Mlanje, Oct, Neave (BMNH).

Material examined: Male, South Africa: Natal: 5 km NW St. Lucia, pond, 28-II-1978, D. & M. Davis (USNM), GS USNM 121,428.

Remarks: *Argyroploce calchantis* was described from two females from Malawi. CLARKE (1958) provisionally transferred it to *Olethreutes* and illustrated the adult and female genitalia of the type. According to Leif Aarvik (personal communication), the species may be congeneric with *Dasybregma gypsodoxa* Diakonoff, 1983, the only species currently included in the genus. Unfortunately, males and females of *A. calchantis* and one or more undescribed congeners have not been associated convincingly, so it is unknown whether the male we cite above represents the opposite sex of the holotype of *A. calchantis* or some other species. Hence, the assignment of our specimen to this species is provisional.

Male genitalia (Figs. 5, 6) with tegumen extended dorsally, constricted at base of pedunculus; anterior parts of pedunculus broad; uncus broad, flat, bilobed, with marginal setae and spines; socius originating laterad of base of uncus, rounded; gnathos slender, fused with base of subsclerium; henion broad, weakly sclerotized; valva broad basally with large ventral incision; basal cavity broad with densely setose, dorsoposterior lobe; cucullus simple with large ventral lobe fringed with sparse long setae; sacculus with two groups of setae: one postbasal group of long setae and one posterior group of short spines; aedeagus (Fig. 6) short.

Eucosmini

Xenosocia paracremna (Meyrick, 1913)

Holotype: Female, South Africa: Three Sisters (TMP).

Material examined: South Africa: Cape Province: Sir Lowry's Pass, ca 22 km E Cape Town, fynbos, 484 m, 21-III-1978 (1 female), D. & M. Davis & B. Akerbergs (USNM).

Remarks: Meyrick described *Argyroploce paracremna* on the basis of a single female from Limpopo (formerly part of Transvaal Province), South Africa. BROWN (2005) treated it as “Unplaced Eucosmini,” and RAZOWSKI & KRÜGER (2007) recently transferred it to *Xenosocia*. We examined one specimen from South Africa.

Herpystis capeana Razowski & Brown, sp. n. (Fig. 18)

Holotype: Male, South Africa: Cape Province: Sir Lowry's Pass, 484 m, fynbos, ca. 22 km E Cape Town, 21-III-1978, D. & M. Davis & B. Akerbergs (USNM), GS USNM 121,422. Paratype (1 male). Same data as holotype (USNM).

Description: Head: Vertex rough-scaled, pale cream; frons white. Labial palpus with bushy white scaling, median part tinged with pale brown. Thorax: Dorsum smooth scaled without posterior crest, pale cream, tegula slightly darker. Forewing length 6.5-7.5 mm (n = 2); forewing (Fig. 18) slender, somewhat expanding terminad; apex pointed; termen oblique, almost straight. Ground colour whitish, slightly tinged pale brownish cream in basal half of wing, weakly so postmedially; suffusions pale brownish; faint pale tan longitudinal scaling along forewing veins; costal strigulae whitish, divisions pale brownish; ocellus (= speculum) reduced to three blackish dots situated near termen. Markings brownish in form of remnants of median fascia accompanied by a series of spots along cubital arm of median cell, and a dorsobasal spot. Cilia whitish grey. Hindwing whitish, slightly tinged brownish on periphery; cilia whitish.

Male genitalia (Fig. 8) with pedunculi slender, terminal part of tegumen very short; uncus small,

weakly sclerotized laterally; socius large, well sclerotized, curved upward and pointed terminally; basal half of valva broad, sacculus convex-rounded; neck of valve long, distinct, rather slender; cucullus rounded posteriorly, with long spines and subventral pollex; aedeagus long, curved; coruti numerous, short, capitate.

Female genitalia unknown.

Diagnosis: *H. capeana* is assigned provisionally to *Herpystis* on the basis of the similarity of its male genitalia to *Herpystis* sp. near *avida* Meyrick from Australia (see HORAK, 2006: 381) and *H. tinctoria* Meyrick from India (see CLARKE, 1958: 428), and the narrow forewing with dark divisions of the costal strigulae. It shares with those two species an apically rounded cucullus with a single large subventral pollex and a rounded tegumen. Although a similar arrangement of the cucullus is present in some *Spilota* Stephens and *Hermenias* Meyrick, males of most species in these two genera have a distinct notch in the second or third flagellomere of the antenna, which is lacking in *H. capeana*. In *H. capeana* the valva is conspicuously constricted near the middle (it is much less constricted in *H. avida* and *H. tinctoria*) and the aedeagus is nearly twice the length of that of those two species. The extremely long, curved aedeagus, with a dense patch of fine cornuti appears to represent an autapomorphy for *H. capeana*. Superficially, *H. capeana* somewhat resembles *Bactra* with a forewing pattern characterized by faint longitudinal scaling along the forewing veins (unlike other *Herpystis*). However, the male genitalia have nothing in common with those of *Bactra*.

Remarks: As currently defined, *Herpystis* includes 12 species ranging from China (Yunnan Province) south to Australia and west to Pakistan, with two species from Micronesia and a single species from the Seychelles (BROWN, 2005). Although convincingly assigned to Eucosmini, the relationship of the genus to other members of the tribe is poorly resolved. HORAK (2006) provided a contemporary review of the Australian species, with illustrations of adults and male and female genitalia, and treated the genus as “unassigned to genus-group”.

Cosmetra neka Razowski & Brown, sp. n. (Fig. 17)

Holotype: Male, South Africa: Cape Province: Thomas Baines Nature reserve, 13 km SW Grahamstown, Palmiet R., ca. 350 m, 6-III-1978, D. & M. Davis & B. Akerbergs (USNM), GS USNM 121,421.

Description: Head: Vertex with long, bushy, brown-tipped tawny scales; frons and labial palpus tawny; lower frons white; antenna subserrate. Thorax: Dorsum pale grayish brown; tegulae tawny. Forewing length 5.2 mm (n = 1); forewing weakly expanding posteriorly; apex short, pointed; termen slightly oblique, broadly sinuate to M_2 . Ground colour brownish cream, in part tinged greyish, suffused brownish; costal strigulae slightly paler than ground colour, divisions pale brownish and brownish rust; ocellus (= speculum) greyish cream with brownish marks, without refractive lines and inner spots; termen white edged in concavity. Markings brownish, weakly developed consisting of median and postmedian fasciae; small brown subtornal blotch; dorsal patch whitish suffused and lined pale brownish, proximally edged brown; brown suffusion before the latter. Cilia brown, paler towards tornus. Hindwing brownish, darker on periphery, transparent towards base; cilia concolorous with middle of wing.

Male genitalia (Fig. 7) with short, pointed uncus; subsocii strongly sclerotized, pointed apically, with one of more subapical serrations basally, a pair of a teeth near middle of dorsal margin, and dense patch of long hairs from near middle; valva broadest basally, narrowed in middle one-third (= neck), dilated at cucullus; cucullus nearly parallel-sided, slightly narrowed apicad, with row of 4-6 large spines along lower edge; aedeagus short, stout with bundle of 10-12 long slender cornuti. Female genitalia unknown.

Diagnosis: The male genitalia of *C. neka* are easily distinguished from those of *C. anthophaga* and *C. rythmosema* by the larger socii, the distinctive shape of the cucullus, and the presence of a tiny, pointed uncus.

Etymology: The species is a patronym for our friend Neka Hudson.

Remarks: DIAKONOFF (1977) proposed *Cosmetra* for a single species, *C. anthophaga* Diakonoff, 1977, providing illustrations of the male and female genitalia. He subsequently (DIAKONOFF, 1992) described *C. rythmosema*, augmenting his original diagnosis with a few features of forewing venation and male genitalia. In that discussion, he proposed the term “subsocius” for the “heavy apomorphous socii attached with their bases not straight to the tegumen, but to the upper part of an underlying subrectangular sclerite, in its turn attached with its upper part to the tegumen, but ventrally being free” Although we disagree with the term “subsocii,” *Cosmetra neka* is assigned to the genus on the basis of this complex structure of the socii and the similarity of its forewing pattern with that of *C. rythmosema* (see DIAKONOFF, 1992).

Although it is possible that the new species could be assigned to *Sycacantha*, *C. neka* lacks the modified hind tibia (with hair pencils), the modified (open groove) anal margin of the male hindwing, and the tuft of long hair scales originating from an invaginated crescentic region, all of which HORAK (2006) indicates are present in most Australian members of *Sycacantha*.

Grapholitini

Cydia ibadena Razowski & Brown, sp. n. (Fig. 19)

Holotype: Male, Nigeria: Ibaden, Iita, West Bank Lake, 7-9-II-1978, D. & M. Davis (USNM), GS USNM 121,422. Paratypes (2 females). Same data as holotype (USNM), GS USNM 121,439.

Description: Head: Vertex and frons olive brown, sprinkled with ochreous. Labial palpus olive brown, mostly pale ochreous laterally. Ocellus large. Thorax: Dorsum olive brown, sprinkled with ochreous. Forewing length 4.0 mm (n = 3); forewing weakly expanding terminad; apex broad, rounded; termen concave postapically. Ground colour brownish olive densely sprinkled with ochreous; costal strigulae ochreous cream, cream near apex, divisions brownish; ocellus and subcostal area near apex, and termen rather ochreous; inner spots of ocellus black, posterior line distinct. Some brown strigulae between veins in terminal half of wing; indistinct brown fasciae from dorsum and one brown elongate mark near median area of wing. Cilia brownish ochreous. Hindwing brownish; cilia much paler.

Male genitalia (Fig. 9) with top of tegumen slightly depressed with submedial areas of long hair; valva broad; neck indistinct; ventral incision weak, postmedian; cucullus oval with weak ventral lobe; two groups of spines at ventral incision and before cucullus, distinct setae at distal edge of basal cavity, subventrally; aedeagus long, slender, with a few dorsoposterior thorns.

Female genitalia (Fig. 13) with sclerites of subgenital sternite weak, submedial, diffuse; sterigma submembranous; sclerite of antrum funnellike, slender proximally, slightly asymmetrical; ductus bursae slender; ductus seminalis arising just beyond middle of ductus bursae; signa a pair of long, slender, spinelike thorns.

Diagnosis: *Cydia ibadena* is superficially similar to “*Laspeyresia*” *cianocephala* Meyrick, 1921 from Rhodesia [Zimbabwe], but *C. ibadena* has a broader forewing apex and a dark brown hindwing. The male genitalia of *C. ibadena* differ from those of *L. cianocephala* in the presence of a large group of setae from the ventral incision of the valva and an area of strong spines extending dorsad from the ventral lobe of the cucullus.

Etymology: The name refers to the type locality, Ibaden in Nigeria.

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BIBLIOGRAPHY

- AARVIK, L., 2004a.– A new genus and species of Tortricidae (Lepidoptera) from Africa.– *Norw. J. Ent.*, **51**: 67-70.
- AARVIK, L., 2004b.– Revision of the subtribe Neopotamiae (Lepidoptera: Tortricidae) in Africa *Norw. J. Ent.*, **51**: 71-122.
- AARVIK, L., 2004c.– Tortricidae (Lepidoptera: Tortricoidea).– *Esperiana Memoir*, **1**: 189-198.
- AARVIK, L., 2005.– Revision of African *Cryptaspasma* Walsingham, 1900 (Lepidoptera: Tortricidae).– *Norw. J. Ent.*, **51**: 193-201.
- AARVIK, L., 2008a.– New data on Bactrini (Lepidoptera, Tortricidae) from Africa.– *Norw. J. Ent.*, **55**: 7-13.
- AARVIK, L., 2008b.– Taxonomic notes on the African leaf-roller moth *Gypsonoma paradelta* (Meyrick, 1925) (Lepidoptera, Tortricidae).– *Norw. J. Ent.*, **55**: 15-18.
- BROWN, J. W., 2005.– Tortricidae (Lepidoptera). In *World catalogue of Insects*, **5**: 741 pp. Apollo Books, Stenstrup.
- BROWN, J. W., 2008.– Review of the neotropical genus *Cacocharis* Walsingham (Lepidoptera: Tortricidae: Olethreutini), with a new synonymy and comments on its host plants and geographic distribution.– *Proc. ent. Soc. Wash.*, **110**: 533-542.
- BROWN, J. W. & POWELL, J. A., 1991.– Systematics of the *Chrysoxena* group of genera (Lepidoptera: Tortricidae: Euliini).– *Univ. Calif. Publ. Ent.*, **11**: 1-87 pp.
- BEGEMANN, G. J. & SCHOEMAN, A. S., 1999.– The phenology of *Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae), *Tortrix capensana* (Walker) and *Cryptophlebia leucotreta* (Meyrick) (Lepidoptera: Tortricidae) on citrus at Zebediela.– *S. Afr. Ent. (Pretoria)*, **7**: 131-148.
- CLARKE, J. F. G., 1958.– *Catalogue of the type specimens of microlepidoptera in the British Museum (Natural History) described by Edward Meyrick*, **3**: 600 pp. Trustees of the British Museum, London.
- DIAKONOFF, A., 1957a.– Tortricidae from Reunion (Microlepidoptera).– *Mém. Inst. scient. Madagascar*, (E) **8**: 237-283.
- DIAKONOFF, A., 1957b.– Remarks on *Cryptophlebia* Walsingham and related genera (Lepidoptera, Tortricidae, Olethreutinae).– *Tijdschr. Ent.*, **100**: 129-146.
- DIAKONOFF, A., 1958.– Notes on Saalmuller's types of Malagassy Microlepidoptera.– *Senckenberg. biol.*, **39**: 89-90.
- DIAKONOFF, A., 1959a.– Mabilles types of Malagassy Tortricidae (Lepidoptera).– *Revue fr. Ent.*, **26**: 167-186.
- DIAKONOFF, A., 1959b.– Meyrick's types of Tortricidae from Madagascar in the Vienna Museum.– *Annaln naturh. Mus. Wien*, **63**: 409-413.
- DIAKONOFF, A., 1960.– Tortricidae from Madagascar. Part 1. Tortricinae and Chlidanotinae.– *Verh. K. ned. Akad. Wet.*, **53**(2): 1-209.
- DIAKONOFF, A., 1961.– Tortricidae from Madagascar in the Berlin Museum.– *Dt. ent. Z. (N. S.)*, **8**: 152-155.
- DIAKONOFF, A., 1963a.– Tortricidae (Lepid.) collected in Madagascar by Dr. Fred Keiser.– *Verh. naturf. Ges. Basel*, **74**: 133-144.
- DIAKONOFF, A., 1963b.– African species of the genus *Bactra* Stephens (Lep., Tortricidae).– *Tijdschr. Ent.*, **106**: 285-357.
- DIAKONOFF, A., 1969.– Tortricidae from the Seychelles and Aldabra (Lepidoptera).– *Tijdschr. Ent.*, **112**(3): 81-100.
- DIAKONOFF, A., 1977.– Tortricidae and Choreutidae from Reunion [Lepidoptera].– *Annals Soc. ent. Fr. (N. S.)*, **13**(1): 101-116.
- DIAKONOFF, A., 1981.– Tortricidae from Madagascar, Part 2. Olethreutinae, 1.– *Annals Soc. ent. Fr. (N. S.)*, **17**(1): 7-32.
- DIAKONOFF, A., 1987.– Description and a record of Tortricidae: Grapholitini (Lepidoptera) from Madagascar.– *Tinea*, **12** (supplement): 118-122.
- DIAKONOFF, A., 1988a.– Tortricidae from Madagascar. Part 2. Olethreutinae, 3 (Lepidoptera).– *Annals Soc. ent. Fr. (N. S.)*, **24**(2): 161-180.
- DIAKONOFF, A., 1988b.– Tortricidae from Madagascar. Part 2. Olethreutinae, 4 (Lepidoptera).– *Annals Soc. ent. Fr. (N. S.)*, **24**(3): 307-330.
- DIAKONOFF, A., 1989a.– Tortricidae from Madagascar. Part 2. Olethreutinae, 5.– *Annals Soc. ent. Fr. (N. S.)*, **25**(1): 41-69.
- DIAKONOFF, A., 1989b.– Tortricidae from Madagascar. Part 2. Olethreutinae, 6 (Lepidoptera).– *Annals Soc. ent. Fr. (N. S.)*, **25**(4): 431B460.

- DIAKONOFF, A., 1992.– Tortricidae from Madagascar Part 2. Olethreutinae, 7.– *Annals Soc. ent. Fr. (N. S.)*, **28**(1): 37-71.
- HORAK, M., 2006.– Olethreutinae moths of Australia (Lepidoptera: Tortricidae).– *Monographs on Australian Lepidoptera*, **10**: 522 pp.
- JOANNIS, J., 1900.– Description d'un Microlépidoptère nouveau, nuisible au Vanillier et provenant de l'île de la Reunion.– *Bull. Soc. ent. Fr.*, **13**: 262-263.
- KARISCH, T., 2005a.– Übersicht ueber die Gattung *Dracontogena* Diakonoff 1970 (Lepidoptera: Tortricidae: Olethreutinae: Grapholitini).– *Linzer Biol. Beitr.*, **37**(1): 457-476.
- KARISCH, T., 2005b.– Ein neuer wickler aus Angola (Lepidoptera, Tortricidae, Olethreutinae).– *Lambillonea*, **105**: 500-503.
- KROON, D. M., 1999.– *Lepidoptera of southern Africa host-plants and other associations. A Catalogue*: 160 pp. Lepidopterists' Society of Africa & D. M. Kroon, Sasolberg.
- MEYRICK, E., 1918.– Descriptions of South African Lepidoptera.– *Ann. Transv. Mus.*, **6**: 7-59.
- MYBURGH, A. C., & BASSON, S. G., 1961.– *Tortrix capensana* (Wlk.) and *Epichoristodes ionephela* (Meyr.) as pests new to apples and pears (Lepidoptera: Tortricidae).– *J. ent. Soc. Sth. Afr.*, **24**: 348-349.
- PINHEY, E. C. G., 1975.– *Moths of Southern Africa, descriptions and colour illustrations of 1183 species*: 273 pp. Tafelberg Publishers Ltd., Cape Town.
- RAZOWSKI, J., 1964.– A discussion of some groups of Tortricini (Tortricidae, Lepidoptera) with descriptions of new genera and species.– *Acta zool. cracov.*, **9**: 357-415.
- RAZOWSKI, J., 1966.– *World fauna of the Tortricini (Lepidoptera, Tortricidae)*: 576 pp. Panstwowe Wydawnictwo Naukowe, Kraków.
- RAZOWSKI, J., 2002a.– The genera of Tortricidae (Lepidoptera) common for the Palaearctic and Afrotropical regions.– *Acta zool. cracov.*, **45**(3): 197-205.
- RAZOWSKI, J., 2002b.– Notes on the Afrotropical archipine genus *Procrice* Diakonoff, 1960 with description of three new species (Lepidoptera: Tortricidae).– *SHILAP Revta. lepid.*, **30**: 235-238.
- RAZOWSKI, J., 2002c.– *Tortricidae of Europe. Part I. Tortricinae and Chlidanotinae*: 247 pp. František Slamka, Bratislava.
- RAZOWSKI, J., 2004.– Review of the genera of Afrotropical Tortricidae (Lepidoptera).– *Acta zool. Cracov.*, **47**(3-4): 167-210.
- RAZOWSKI, J., 2005a.– Notes and descriptions of primitive Tortricini from tropical Africa, with a list of Asian taxa (Lepidoptera: Tortricidae).– *SHILAP Revta. lepid.*, **33**: 423-436.
- RAZOWSKI, J., 2005b.– Tortricidae (Lepidoptera) from South Africa. 1: Tortricini and Cochylini.– *Polskie Pismo ent.*, **74**: 495-508.
- RAZOWSKI, J., 2006a.– Tortricidae (Lepidoptera) from South Africa. 2: Three new genera of Tortricinae.– *Polskie Pismo ent.*, **75**: 417-425.
- RAZOWSKI, J., 2006b.– Tortricidae (Lepidoptera) from South Africa. 3: *Hectaphelia* gen. n., *Aphelia* Hübner and *Clepsis* Guenée.– *Polskie Pismo ent.*, **75**: 427-438.
- RAZOWSKI, J. & KRÜGER, M., 2007.– An illustrated catalogue of the type specimens of Tortricidae in the Transvaal Museum, Pretoria (Lepidoptera: Tortricidae).– *SHILAP Revta. lepid.*, **35**: 103-179.
- SWAIN, V. M. & PRINSLOO, G. L., 1986.– A list of phytophagous insects and mites on forest trees and shrubs in South Africa.– *Entomology Mem. Dep. Agric. Water Supp., Repub. S. Afr.*, **66**: VI + 91 pp.
- TAYLOR, J. S., 1957. - Notes - Lepidoptera eastern Cape Part 4.– *J. ent. Soc. sth. Afr.*, **20**: 315B332.

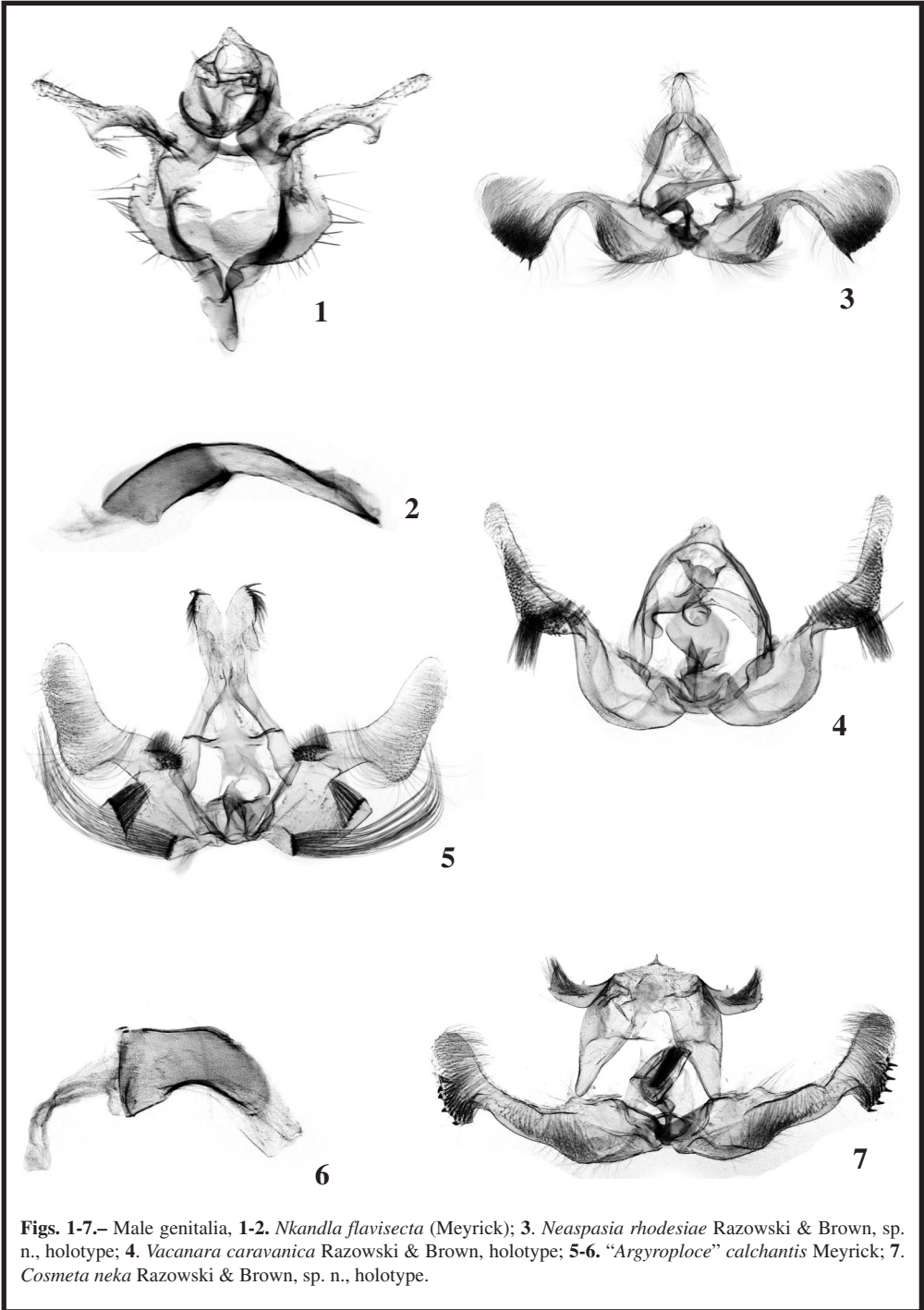
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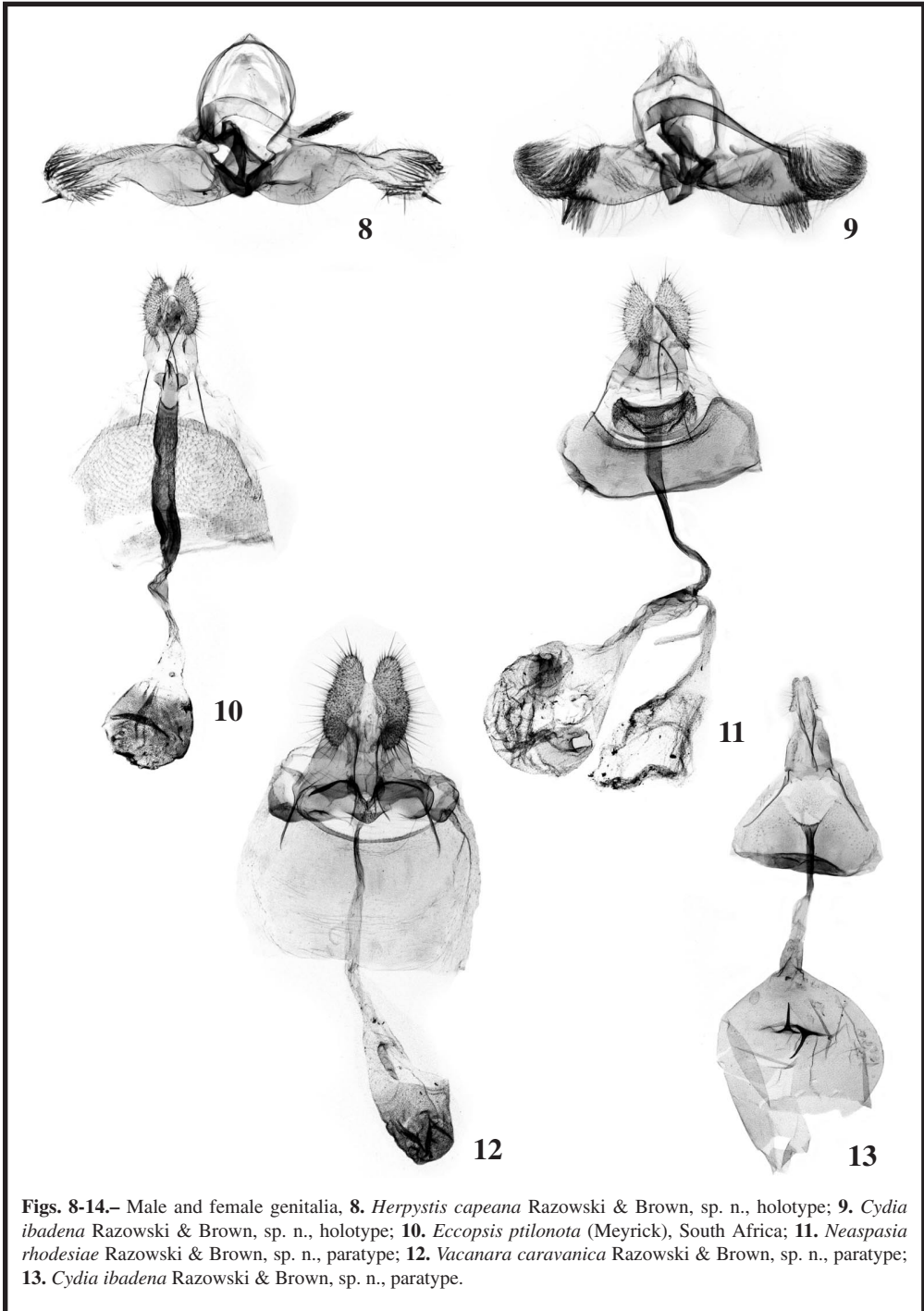
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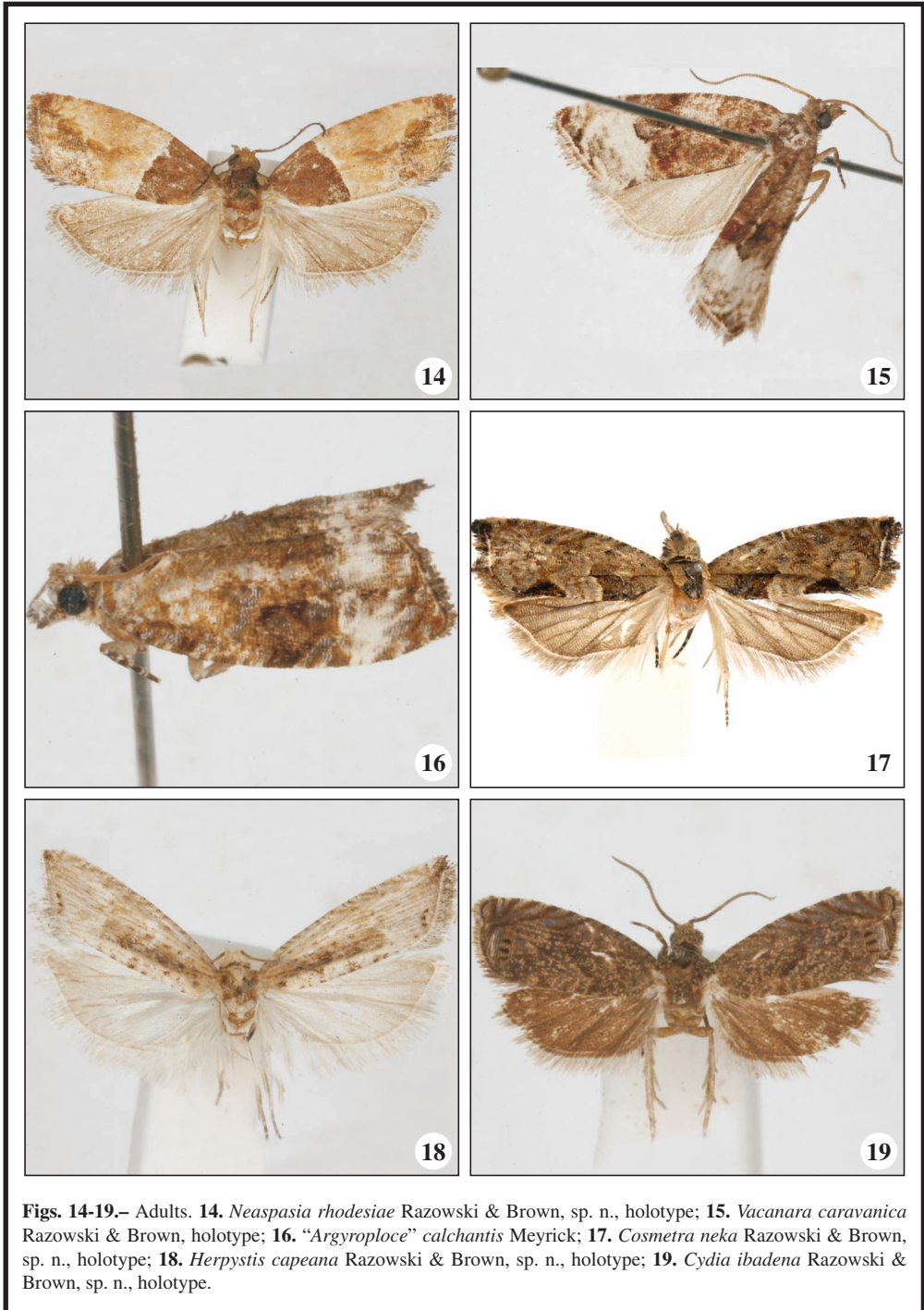
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Figs. 1-7.— Male genitalia, 1-2. *Nkandla flavisecta* (Meyrick); 3. *Neaspasia rhodesiae* Razowski & Brown, sp. n., holotype; 4. *Vacanara caravanica* Razowski & Brown, holotype; 5-6. “*Argyroploce*” *calchantis* Meyrick; 7. *Cosmeta neka* Razowski & Brown, sp. n., holotype.



Figs. 8-14.— Male and female genitalia, **8.** *Herpystis capeana* Razowski & Brown, sp. n., holotype; **9.** *Cydia ibadena* Razowski & Brown, sp. n., holotype; **10.** *Eccopsis pylonota* (Meyrick), South Africa; **11.** *Neaspasia rhodesiae* Razowski & Brown, sp. n., paratype; **12.** *Vacanara caravanica* Razowski & Brown, sp. n., paratype; **13.** *Cydia ibadena* Razowski & Brown, sp. n., paratype.



Figs. 14-19.— Adults. 14. *Neaspasia rhodesiae* Razowski & Brown, sp. n., holotype; 15. *Vacanara caravanica* Razowski & Brown, holotype; 16. "*Argyroploce*" *calchantis* Meyrick; 17. *Cosmetra neka* Razowski & Brown, sp. n., holotype; 18. *Herpystis capeana* Razowski & Brown, sp. n., holotype; 19. *Cydia ibadena* Razowski & Brown, sp. n., holotype.