

GRAZIANO BASSI

AFROTROPICAL *MICROCHILO* OKANO
(LEPIDOPTERA CRAMBIDAE)*Via Sant'Agostino, 51, I-10051 Avigliana (Torino), Italy; Muséum d'histoire naturelle de Genève, C.P. 6434, CH-1211 Geneva 6, Switzerland*Corresponding Author: alphacrambus@gmail.com; <https://orcid.org/0000-0002-6028-0740>Bassi G. – Afrotropical *Microchilo* Okano (Lepidoptera Crambidae).*Microchilo* Błeszyński is for the first time reported from the Afrotropical region. Three new species are described and illustrated: *Microchilo bidentatus* sp. nov. from Tanzania, *Microchilo monoceros* sp. nov. and *Microchilo turgidus* sp. nov., both from Democratic Republic of the Congo.

KEY WORDS: Crambinae, Diptychophorini, Ethiopian region, new species.

INTRODUCTION

Among Crambinae, *Microchilo* Okano, 1962 is a genus of small moths known from 21 Oriental and Australian species (Nuss *et al.*, 2026). Its characters probably place it in the tribe Diptychophorini, but further molecular analysis are needed (Léger, 2024). Among the specimens of Afrotropical *Glaucocharis* given me to study by the Geneva and Oslo Museums, surprisingly I found some atypical specimens that coincide perfectly with *Microchilo* and demonstrate its presence also in the Ethiopian region.

MATERIAL AND METHODS

Genitalia dissections and slide mounts follow Robinson (1976). Terminology of the genitalia follows Klotz (1970) and Kristensen (2003). Genitalia pictures were taken with a Wild Laborlux 12 and a Canon S120 digital camera. The adult pictures were made with a NIKON D300. The images were enhanced with Adobe Photoshop Elements. The descriptions are based on all available specimens. The length of the labial palpus is compared to the maximum diameter of the composite eye in side view. Acronyms: GS = genitalia slide; GB = Graziano Bassi; MHNG = Muséum d'histoire naturelle de Genève, Geneva, Switzerland; NHMO = for Natural History Museum, University of Oslo, Norway; RCGB: Research Collection of Graziano Bassi, Avigliana, Italy.

TAXONOMY

Microchilo Okano, 1962

Type species: *Microchilo inouei* Okano, 1962: 129, 130. Type locality: Japan: Honshu Island. Remarks: Currently, the distinguishing features of the type species of the genus *Microchilo* are its size (wingspan less than 20 mm) and, in the male genitalia, a strongly modified uncus and gnathos, characteristics clearly pres-

ent in African species. Some oriental species have characteristics that could lead, through morphological and molecular analysis, to the creation of new genera, which is beyond the scope of this paper.

Microchilo bidentatus Bassi sp. nov.

EXAMINED MATERIAL. Holotype, 1 male, Tanzania, Muheza distr[ict]: Amani, 900-950 m, 13.xii.1992, L. Aarvik legit, deposited in NHMO.

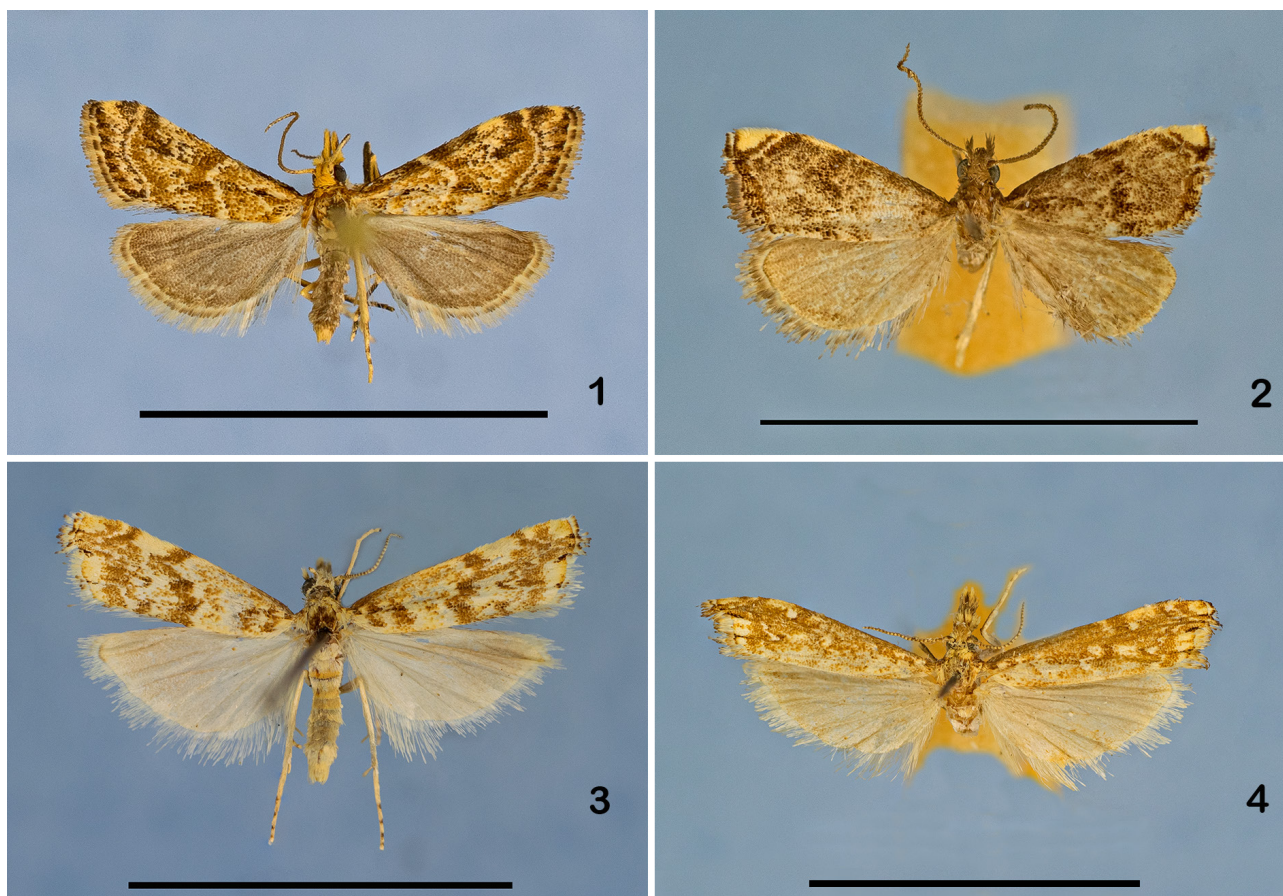
Paratype: 1 male, same data as holotype, GS 7210 GB, RCGB.

ETYMOLOGY: The new species derives its name from the two teeth present on the costa of the valva in male genitalia.

DIAGNOSIS: The habitus (Fig. 1) is similar to some oriental species, such as *M. imminutela* (Léger 2024, Fig. 57) or *M. landryi* (W. Li 2018, Fig. 4) in the forewing with evident medial and subterminal fascia, but in *M. bidentatus* medial fascia is strongly angled medially and subterminal fascia has blackish outer edge. The male genitalia (Fig. 5) are similar to those of *M. landryi* (W. Li 2018, Figs. 11, 12), but are distinguished in the more pointed apex of uncus, the double tooth on the costa and in the single minute cornutus in the vesica.

DESCRIPTION (Fig. 1). Wingspan: holotype 11 mm., paratype 10 mm. Labial palpi 3.5 X eye diameter, dark brown bordered and tipped yellow brown on outer side, yellow brown on inner side. Maxillary palpi yellow brown with medial dot dark brown. Antenna thickened, brown with costa bright pale brown. Frons yellow brown, produced. Ocelli and chaetosemata moderate. Vertex yellow. Patagium yellow medially, brown laterally. Tegulae and thorax brown marbled with dark brown and yellow. Wings with colours and pattern as illustrated (Fig. 1). Under-side of forewing brown with veins marked dark brown. Underside of hindwing off-white suffused with brown; a paler medial fascia is visible. Legs yellow with tarsi annulated with brown.

Male genitalia (Fig. 5). Uncus almost 1.5 x as long



Figs. 1-4. *Microchilo* spp., habitus. (1) *Microchilo bidentatus* sp. nov., holotype. (2) *Microchilo monoceros* sp. nov., holotype. (3) *Microchilo turgidus* sp. nov., holotype. (4) *Microchilo turgidus* sp. nov., female paratype. Scale bars = 10 mm.

as gnathos, apically swollen and with apical setae long and curved. Gnathos with strong apical tooth. Tegumen subtriangular. Vinculum sclerotized, strongly produced dorsally. Juxta basally triangular, produced and cylindrical apically. Pseudosaccus subtriangular. Valva with costa sclerotized, with triangular subapical tooth and small apical tooth; cucullus rounded. Phallus slightly longer than valva; vesica with small apical cornutus.

Female unknown.

DISTRIBUTION: Tanzania, Tanga region, Muheza district.

***Microchilo monoceros* Bassi sp. nov.**

EXAMINED MATERIAL. Holotype, 1 male, [DRC] Ht. Katanga, Tsinkolobwe, 18.xii.[19]30, J. Romieux [legit], GS 2228 = 1412 MHNG, deposited in MHNG.

ETYMOLOGY: The new species derives its name from the Greek *monókerōs*, = unicorn, and refers to the unusual horn present on the uncus of male genitalia.

DIAGNOSIS: The habitus (Fig. 2) is unmistakable among congeners in yellow brown ground colour, and, in the forewing, the large black brown medial fascia and the yellow apex. The male genitalia are different from other *Microchilo* in the straight horn on the uncus and with the tuft of about ten strong cornuti in the vesica.

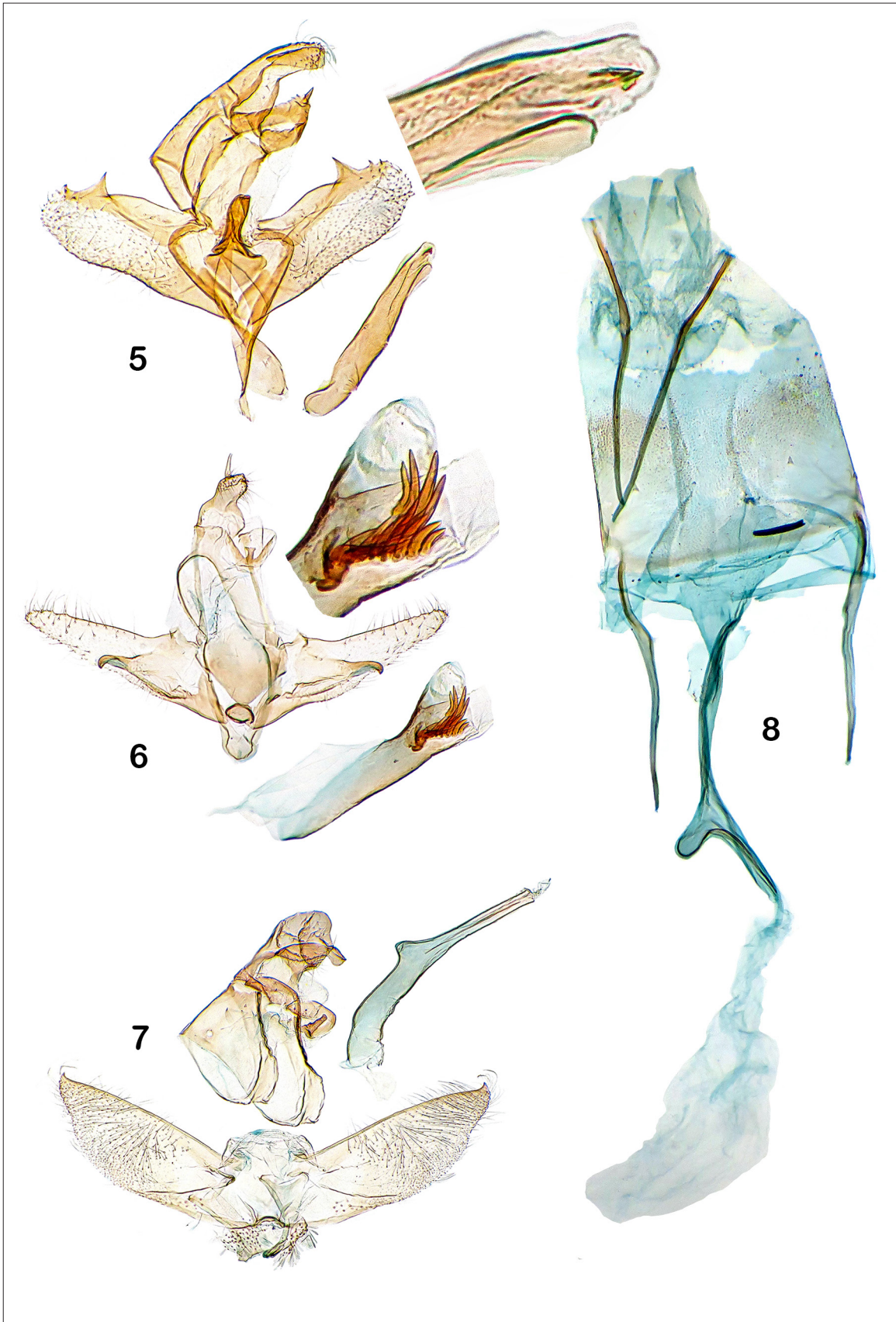
DESCRIPTION (Fig. 2). Wingspan 11 mm. Labial palpi damaged. Maxillary palpi brown. Frons subconical, produced, brown. Antenna thickened, brown with raised scales bronze brown. Ocelli and chaetosemata poorly developed. Vertex, patagium, tegulae and thorax brown with scattered grey brown. Wings with colours and patterns as illustrated (Fig. 2). Underside of wings bright pale brown with apex of forewing yellow. Legs pale yellow brown with inner side white.

Male genitalia (Fig. 6). Uncus almost 1.5 x as long as gnathos, medially narrowing and with dorso-apical long thorn. Gnathos basally large and with apical blunt hook. Tegumen subrectangular, slightly shorter than valva. Vinculum slightly produced dorsally. Juxta flat, subrhomboidal. Pseudosaccus subconical. Valva subtriangular, narrowing distally, slightly swollen ventrally; sacculus distally raised, hooked and folded inward. Phallus large, slightly longer than valva; vesica with tuft of about ten cornuti.

Female unknown.

DISTRIBUTION: DRC, Katanga.

Remarks: *M. monoceros* sp. nov. is different from typical *Microchilo* in the colourful habitus and in absence of the costal process and presence of the saccular process, but, according to current knowledge, uncus and gnathos modified in the male genitalia and completely similar to the typical *Microchilo*, are sufficient for generic attribution.



Figs. 5-8. *Microchilo* spp., genitalia. (5) *Microchilo bidentatus* sp. nov., male holotype with phallus extracted and apex of phallus magnified. (6) *Microchilo monoceros* sp. nov., male holotype with phallus extracted and apex of phallus magnified. (7) *Microchilo turgidus* sp. nov., male holotype with phallus extracted. (8) *Microchilo turgidus* sp. nov., female paratype.

Microchilo turgidus Bassi sp. nov.

EXAMINED MATERIAL. Holotype, 1 male, [DRC] Ht. Katanga, Tsinkolobwe, 13.xii.[19]30, J. Romieux [legit], deposited in MHNG.

Paratypes: 1 male, same data as holotype, GS 2218 GB, RCGB, 1 female, [DRC] Ht. Katanga, Sakania, 17.XII.31, J. Romieux, GS 2221 GB = 1405 MHNG, MHNG.

ETYMOLOGY: The new species derives its name from the Latin *turgidus*, -a, and refers to uncus, phallus and ductus bursae in male and female genitalia, all swollen in an unusual way.

DIAGNOSIS: The spotted habitus with termen apically produced is different from each congener, as are the swelling in uncus and the medial part of the phallus in male genitalia and in the medial part of the ductus bursae in female genitalia.

DESCRIPTION (Figs. 3, 4). Wingspan of males 13 mm. Labial palpi 4 X longer than widest diameter of eye, yellow with basis and medial band yellow. Maxillary palpi brown with yellow tips. Frons subconical, produced, yellow sprinkled with brown. Antenna thickened, brown with costa annulated brown and yellow. Ocelli and chaetosemata poorly developed. Vertex ochre brown sprinkled with yellow. Patagium and tegulae yellow sprinkled with brown. Thorax brown sprinkled with yellow. Wings with colours and patterns as illustrated (Fig. 3, 4). Underside of forewing brown with apex bright pale yellow. Underside of hindwing off-white suffused with brown. Legs pale yellow with tarsi annulated with brown. Abdomen yellow, medially suffused with brown, and with anal tuft yellow. Female: wingspan 15 mm., darker than male except for the similar coloured hindwing.

Male genitalia (Fig. 7). Uncus as long as gnathos, medially widening, dorso-apically swollen, ending in a small tip. Gnathos basally large and ending with long and blunt apical hook. Tegumen subtriangular, basally thick. Vinculum slightly produced dorsally. Juxta Y-shaped. Pseudosaccus small, subconical. Valva subtriangular, narrowing distally, with pointed and slightly upturned cucullus. Phallus narrow, slightly longer than valva, gently curved and medially bulged; vesica with a long and thin cornutus.

Female genitalia (Fig. 8). Papillae anales damaged. Apophyses posteriores long and slender, 1.4 x as long as sternite of abdominal segment VIII. Abdominal segment VIII with sternite medially membranous and with two symmetric ventro-lateral triangular teeth. Apophyses anteriores 0.85 x as long as apophyses posteriores. Ostium bursae large, membranous. Ductus bursae as long as corpus bursae, wrinkled and strongly bulged medially. Ductus seminalis opening in distal third of ductus bursae. Corpus bursae suboval, membranous.

DISTRIBUTION: DRC, Katanga.

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