

Faunistic notes on the Afrotropical Copromyzini
(Diptera, Sphaeroceridae)

By

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ABSTRACT: The type-series of *Norrboromia hypopygialis* (Richards, 1939) is studied and its synonymy with *N. spinosa* (Vanschuytbroeck, 1959) has been established. Locality data for 16 species of *Metaborborus*, *Gymnometopina*, *Norrboromia* and *Copromyza* are given incl. numerous new occurrence data for Zaire, Ethiopia, Kenya, Tanzania, Rwanda, Angola, Namibia and South Africa.

In the last years most of the Afrotropical species in the tribe Copromyzini has been revised. Norrbom and Kim (1985, 1987) published excellent papers on the taxonomy and phylogenetic relationships of *Metaborborus* Vanschuytbroeck and *Gymnometopina* Hedicke. Papp (1988) reviewed the species of *Norrboromia* L. Papp. In the last couple of years the present author has identified an interesting material of the Afrotropical Sphaeroceridae deriving from collections of several institutions (mainly from those of the California Academy of Sciences and the Muséum Royal d'Afrique centrale) and also from the staff of the Hungarian Natural History Museum (HNHM) who collected some material in the tropical Africa. The locality data of 16 species (2369 ex.) of four genera are published here with a few comments.

New faunistic records for the given countries are marked with an asterisk. "Zaire" is given below for "Belgian Congo" or "Africa: Belgian Congo" on the labels. The label data of two localities are abbreviated as follows:

Epu = Africa: Belgian Congo, Epu, 950 m elev., Oct 2, 1957, E.S. Ross and R.E. Leech.

Mikumi = Tanzania: Morogoro region, Mikumi Tented Camp, Mikumi National Park, Feb 1, 1987, netting over excrement of elephant, leg. S. Mahunka - T. Pócs - A. Zicsi.

The names of the collectors Drs E.E. Ross and R.E. Leech are abbreviated as "R. and L.". The institutions where the specimens are deposited are marked by their acronyms:

CAS: California Academy of Sciences, Department of Entomology, San Francisco
HNHM: Zoological Department, Hungarian Natural History Museum, Budapest
MRAC: Muséum Royal d'Afrique centrale, Entomologie, Tervuren
NMSA: Natal Museum, Pietermaritzburg
USNM: Department of Entomology, National Museum of Natural History/Smithsonian Institution, Washington

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Metaborborus flavior (Vanschuytbroeck, 1959) - Zaire: 1 ♂ (CAS): Epulu=; Tanzania: 1088 ♂ 1121 ♀ HNHM: Mikumi=. Most of the Mikumi specimens are preserved in alcohol. This is the only Metaborborus species known both from the Afrotropical and Oriental regions (Norrbon and Kim 1985).

Metaborborus pollinosus (Hackman, 1965) - South Africa: 1 ♂ (CAS): Knysna, Cape Prov., X-30-49 B. Malkin. Known from South Africa only.

Metaborborus spinifer (Vanschuytbroeck, 1948) - Zaire: 2 ♂ (CAS, HNHM): Lwiro River, 47 km N. Bukavu, 1950 m, XII-15-57 R. and L. . Hitherto known from Zaire.

Metaborborus stichosus Norrbom and Kim, 1985 - Zaire: 20 ♂ 1 ♀ (CAS, HNHM); Epulu=; Kenya*: 1 ♂ (CAS): Masai, Amboseli Res., Ol Tukai Lodge, 3500 feet, 10-I. 1970 (M.E. Irvin and E.S. Ross); Tanzania*: 24 ♂ 12 ♀ (HNHM): Mikumi=. Described from Zaire (Kivu Prov.), the larvae are probably coprophagous in elephant dung.

Gymnometopina apta (Curran, 1931) - Zaire: 1 ♂ (MRAC): N. Lac Kivu: Rwankwi XII-1951 (J.V. Leroy). Widespread in Central and East Africa (Norrbon and Kim 1985).

Gymnometopina clunicrus (Duda, 1923) - Ethiopia: 4 ♂ (CAS): Shashemawe, 8-VII-1973 (V.O.) DeMasi; Tanzania: 1 ♀ (HNHM): Mikumi=. Widespread in the Afrotropical region (for data see Norrbom and Kim 1987, Papp 1987).

Gymnometopina haasae Norrbom, 1987 - Tanzania*: 2 ♂ (CAS): 13 mi. S. of Babati, 1550 m, XI-18-1957 (R. and L.). Described from Kenya, eastern Zaire and Ethiopia.

Gymnometopina kibokoensis (Vanschuytbroeck, 1959) - Zaire: 1 ♂ 1 ♀ (MRAC): Congo belge, P.N.G. [aramba], Miss. H. De Saeger, Pp.K/55/d/8, 19-XI-51 or II/id/9, 3-X-1951, Nos 2768, 2709; 6 ♂ (CAS, HNHM): Epulu=. Widespread in Central Africa (Norrbon 1987).

Gymnometopina lucida (Séguy, 1933) - Zaire*: 3 ♂ (CAS, HNHM): Lwiro River, 47 km N. Bukavu, 1950 m, XII-15-57 (R. and L.); Tanzania*: 3 ♂ 6 ♀ (HNHM): Mikumi=. Described and hitherto known from Mozambique only.

Gymnometopina magna Norrbom, 1987 - Zaire: 3 ♂ 1 ♀ (CAS, HNHM): Lwiro River, 47 km N. Bukavu, 1950 m, XII-15-57 (R. and L.); 6 ♂ 1 ♀ (CAS, USNM, HNHM): Epulu=; 1 ♂ (CAS): id., X-2-1957. Known from eastern Zaire only /Norrbon and Kim 1987.

Gymnometopina marshalli Norrbom, 1987 - Zaire: 1 ♂ (CAS): Epulu=. Described on the basis of a single holotype from Katanga Prov., P. N. Upemba.

Gymnometopina richardsi Norrbom, 1987 - Zaire: 3 ♂ 1 ♀ (CAS, HNHM, det. A.L. Norrbom): Epulu=. Hitherto five specimens have been reported from Zaire and Uganda (Norrbon and Kim 1987).

Norrbonia gravis (Adams, 1905) - Zaire: 1 ♂ (CAS): Epulu=; 1 ♀ (CAS): Lwiro River, 47 km N. of Bukavu, 1650 m, 4-I-1958 R. and L. . A widespread Afrotropical species (Papp 1988).

Norrbonia hypopygialis (Richards, 1939)

Kenya*: 18 ♂ 2 ♀ (HNHM): Marsabit, on elephant dung, "Teleki Exped.", 18.3.1988, (A. Vojnits, No.208); Zaire: 13 ♂ 5 ♀ (CAS): Epulu=; 1 ♀ (MRAC): N. Lac Kivu, Rwankwi, XII-1951 (J.V. Leroy); Rwanda*: 1 ♂ (MRAC): contref. Est Muhavura, 2100 m, 28-I-53 (P. Basilewsky).

Through the courtesy of Dr. Brian R. Pitkin (BMNH) I had the opportunity to study its type-series (cf. Papp 1988). Holotype male (BMNH): 1/ [Ø 6 mm round label with red margin] Type; 2/ [12x7 mm, white label, printed] Zululand: Umfolosi Riv., June 1922, H.H. Curson; 3/ Pres. by Imp. Bur. Ent. Brit. Mus., 1922-464; 4/ "from dung of Rhino"; 5/ [26x13 mm, with handwriting of Richards] "Borborus sordidus Zett. var. hypopygialis Type ♂". The holotype is glued on a white card of 11.5x4 mm, its right wing is lost.

Paratype (BMNH): 15 ex. with two labels of the size of 5/: "6 ♂/10 ♀ Paratypes B. sordidus var. hypopygialis". Their labels: 1/ Paratype; 2/-4/: same as for holotype; their identity is as follows: 3 ♂ 2 ♀ conspecific (one ♂ dissected, genitalia preserved in glycerin in a plastic microvial); 1 ♂: Norrbonia elephantis L. Papp, 1988; new for South Africa; 2 ♀: Norrbonia kenia-ca L. Papp, 1988; new for South Africa; 2 ♂, 4 ♀: Norrbonia elephantis/impaza-ensis (genitalia preparation needed); 1 ex.: not identifiable, only small fragments remained glued on its card.

The measurements of the holotype are: body length 2.08 mm, wing length 2.21 mm, wing width ca. 0.89 mm, those of the conspecific paratypes: 2.04--2.50 mm, 2.08--2.54 mm, 0.78--0.97 mm.

N. hypopygialis (Richards, 1939) is conspecific with the holotype of *N. spinosa* (Vanschuytbroeck, 1959), as stated in Papp (1988), where the details of the study on the type-series of *hypopygialis* were not published.

Norrboromia marginatis (Adams, 1905) - Kenya: 26 ♂ 3 ♀ (HNHM): Marsabit, on elephant dung, "Teleki Exped.", 18.3.1988 (A. Vojnits, No.208); Zaire: 1 ♂, 1 ♀ (CAS): Epulu; Angola: 2 ♀ (CAS): Luanda, VII-18-57 (R. and L.); Namibia ("Sw Africa" *): 1 ♀ (CAS): 10 mi. S of Windhoek, V-8-58, 1850 m (R. and L.); South Africa: 2 ♂ 3 ♀ (NMSA): Transvaal, n. Kruger National Park, Pafuri, 22°27'S 31°17'E, 21-9-1979, L. Braack, ex. Impala carcass. Madagascar: 2 ♂ 1 ♀ (MRAC): Coll. Dr. H. Schouteden Widespread in the Afrotropical and Oriental regions, viz. in the Mediterranean subregion of the Palaearctic.

Copromyza hackarsi (Vanschuytbroeck, 1948) - Zaire: 26 ♂ 25 ♀ (CAS, HNHM): Epulu; 2 ♂ 10 ♀ (MRAC, HNHM): P. [arc] N. [ational] G. [aramba], Miss. H. De Saeger, PpK.72, 27-VIII-1951, No. 2338, or, 12/d/9, 2-I-1952, 2972, or, Utukuru/4, 22-VII-52, 3811, or, Mpaza/9, 23-I-1952, 3076, or, II/g., 18-XII-1950, 997. Hitherto known from the eastern half of Zaire only but it seems common there.

REFERENCES

- Norrbor, A.L. and Kim, K.C. (1985): Taxonomy of the genus *Metaborborus* Vanschuytbroeck (Diptera: Sphaeroceridae). - *Revue Zool. afr.*, 99/1: 17-42.
- Norrbor, A.L. and Kim, K.C. (1987): Taxonomy and phylogenetic relationships of the Afrotropical genus *Gymnometopina* Hedicke (Diptera: Sphaeroceridae). - *Revue Zool. afr.*, 101: 479-505.
- Papp, L. (1987): The lectotype of *Gymnometopina clunicrus* (Duda, 1923) (Diptera: Sphaeroceridae). - *Acta zool. hung.*, 33: 457-461.
- Papp, L. (1988): A review of the Afrotropical species of *Norrboromia* gen. n. (Diptera: Sphaeroceridae, Copromyzini). - *Acta zool. hung.*, 34: 393-408.

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