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**Fossil Eocene *Salticidae* (Araneae) from the collection  
of the Museum of Earth in Warsaw**

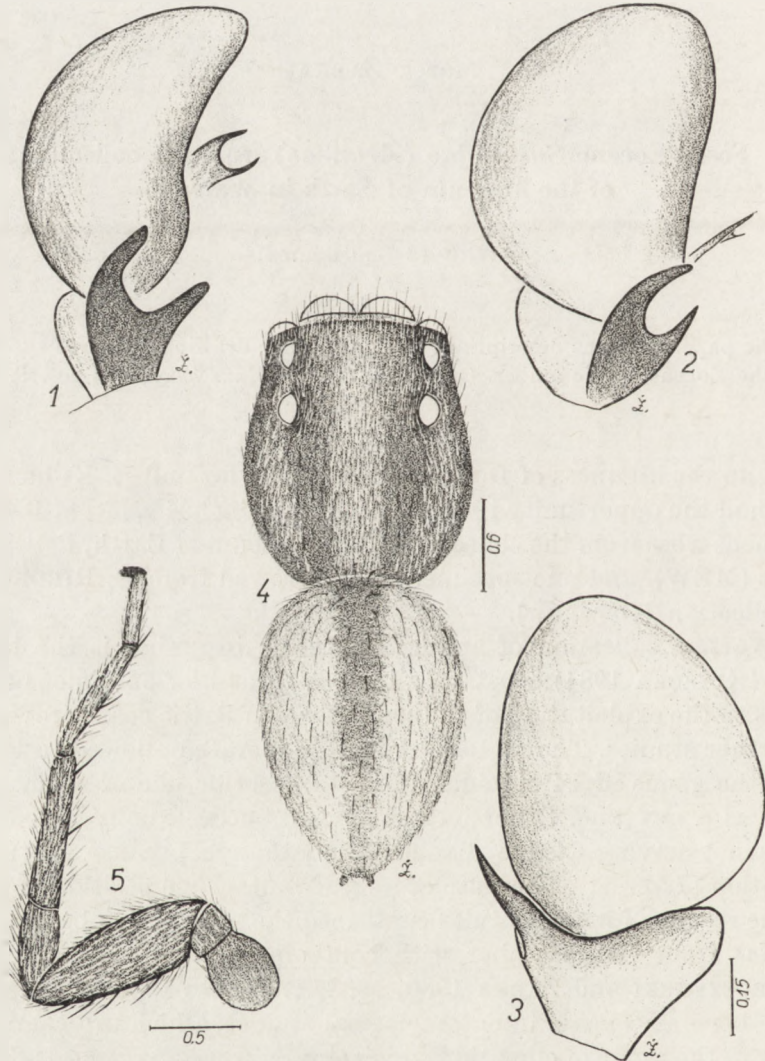
[With 13 text-figures]

**Abstract.** The paper contains descriptions and taxonomic drawings of three species of *Salticidae* from the Eocene Baltic amber. One of them — *Eolinus balticus* is described as a new species.

Owing to the kindness of Doc. Dr B. CERANOWICZ and R. KULICKA, M. Sc., I recently had the opportunity to study 32 Eocene inclusions from Baltic amber. The specimens were from the collection of the Museum of Earth, Polish Academy of Sciences (MEW), and one specimen was borrowed from R. RIEDEL's, M. Sc., private collection (Brwinów).

The Warsaw collection of animal inclusions in amber is the biggest one in Poland (KULICKA 1984) constantly increasing as new specimens are bought and thanks to the exploitation of the south-eastern Baltic coast providing material for further studies. The material I have elaborated allowed to identify the species or the genus of 14 specimens and to describe one of them — *Eolinus balticus* — as a new one. Other inclusions contained sexually immature forms and forms not having visible diagnostic characters because of turbidity or contamination of amber or because of a disadvantageous position of copulatory organs. The results of investigations confirmed the previously observed affinities of *Salticidae* from Baltic amber with contemporary Oriental and Ethiopian faunae (PRÓSZYŃSKI and ŻABKA 1980, 1983, WANLESS 1984). Similar observations have been also made in entomological studies, which are connected with the history of the range of climatic and vegetation zones. As regards *Salticidae* — the fossil forms from the Eocene belong to present subfamilies, but common genera are not recorded. However this does not indicate a lack of affinities

at this level. Many papers are not sufficiently documented to estimate properly the relation and it seems that the fossil forms have been described as a rule as those representing extinct genera. One should also remember that the ranges of many genera are not distinct, they overlap morphologically, and there is always something to be said authoritatively by the scientist. The oldest — Oligocene *Salticidae*, representing contemporary genera have been recorded up to now by CUTLER (1984) in the Dominican amber (*Corythalia* C.L.K., *Lysso-manes* HENTZ, *Nebridia* SIM., *Thiodina* SIM.). From the Miocene sediments the genus *Euophrys* C.L.K. is known (SCHAWALLER and ONO 1979).



Figs. 1-5. ♂ *Eolinus balticus* sp. n. — holotype: palpal organ (1-3), general appearance (4) and leg I (5).

## List of material identified

1. *Eolinus tystschenkoi* PRÓSZYŃSKI et ŽABKA: 1 ♂ — MEW 1945/30.
2. *Eolinus balticus* sp. n.: 1 ♂ holotype — MEW 2923.
3. *Eolinus* sp.: 1 ♀ — MEW 8218, 1 ♀ — MEW 14725.
4. *Gorgopsina frenata* (KOCH et BERENDT): 1 ♂ — coll. R. RIEDEL, 1 ♂ — MEW 15488, 1 juv. — MEW 10444. 1 ♀ — MEW 1535/2.
5. *Gorgopsina* sp.: 1 ♂ — MEW 3719, 1 juv. — MEW 17878, 1 juv. — MEW 11449, 1 juv. — MEW 15815.
6. *Prolinus fossilis* PETRUNKEVITCH: 1 ♀ — MEW 8571, 1 juv. — MEW 19342.

*Eolinus balticus* sp. n.

Material: 1 ♂ holotype — MEW 2923.

Male (Fig. 4). Cephalothorax brown, darker around eyes, with a longitudinal streak of white setae. Similar setae laterally. Also present brown protruding bristles. Length of cephalothorax 1.80, length of eye field 0.70, width of eyes I 1.25, width of eyes III 1.15. Abdomen grey with an indistinct brown median belt with grey hairs and brown bristles. Length of abdomen 2.05. Clypeus orange-yellow with similar setae and single brown bristles. Chelicerae, maxillae and labium grey-brown, sternum similar with a margin of white setae. Venter beige, spinnerets light brown. Legs (Fig. 5) slender, at the basal part dark brown, distal segments paler. Setae numerous, white-grey, bristles and spines brown.

Palpal organ (Figs. 1–3) with a large split lateral tibial apophysis and a forked split apophysis on the surface of bulb. The latter is not so distinct in allied species — *E. succineus* PETRUNK. and *E. tystschenkoi* PRÓSZ. et ŽABKA (WANLESS 1984, PRÓSZYŃSKI and ŽABKA 1980). The genus *Eolinus* PETRUNK. represents characters typical for the subfamily *Spartaeinae* known at present from Africa, Madagascar, south-east Asia, West Pacific Islands and single species from New Zealand and Australia (WANLESS 1984).

*Gorgopsina frenata* (KOCH et BERENDT, 1854)

1854 *Phidippus frenatus* KOCH and BERENDT, Die im Bernst. bef. org. Reste der Vorw., p. 88.

1942 *Gorgopis frenata*: PETRUNKEVITCH, Trans. Conn. Acad. Arts Sci., **34**: 407–417.

1950 *Gorgopis frenata*: PETRUNKEVITCH, Bull. Mus. comp. Zool., **103**: 327–328.

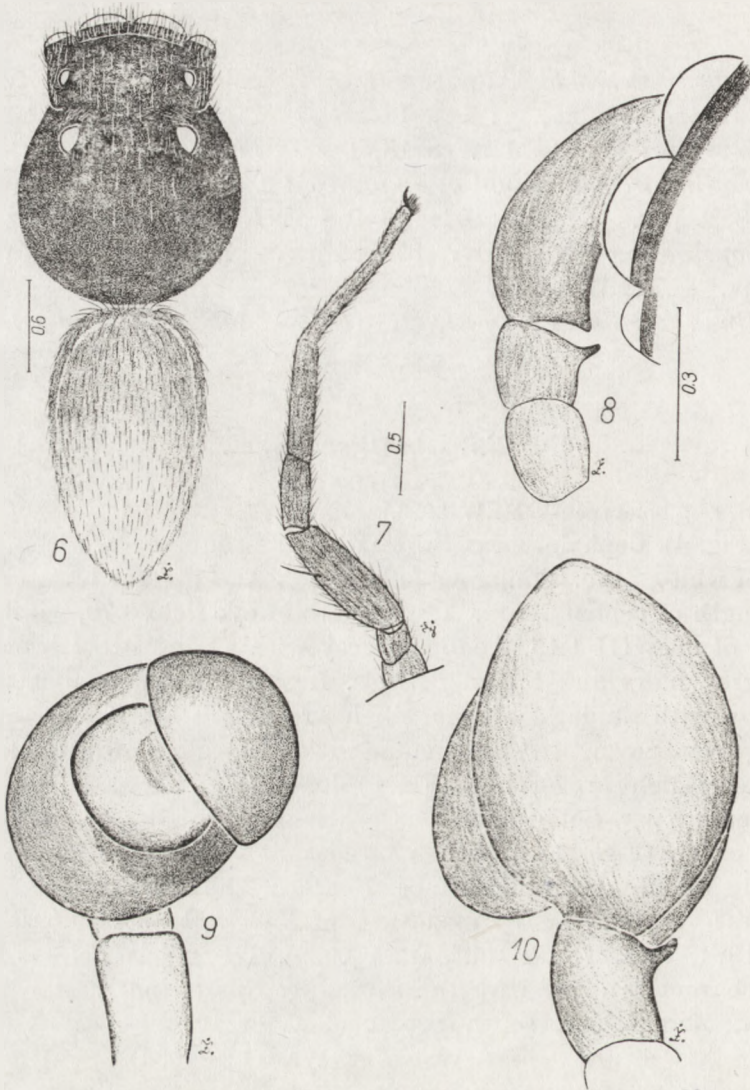
1955 *Gorgopsina frenata*: PETRUNKEVITCH, Treatise of Inv. Palaeont., **P**: 150.

1958 *Gorgopsina frenata*: PETRUNKEVITCH, Trans. Conn. Acad. Arts Sci., **41**: 335.

Material: 1 ♂ — coll. R. RIEDEL, 1 ♂ — MEW 15488.

Male (Fig. 6). Cephalothorax thickset with a constriction behind eyes II, broadening posteriorly, dark brown, surroundings of eyes darker. Setae white, bristles grey-brown — denser on eye field. Length of cephalothorax 1.80, length





Figs. 6–10. ♂ *Gorgopsina frenata* (Koch et Berendt, 1854): general appearance (6), palpal organ (8–10) and leg I (7).

of eye field 0.70, width of eyes I 1.20, width of eyes III 0.95. Abdomen anteriorly dark grey with a narrow light margin, paler posteriorly. Setae and hairs quite numerous, grey-brown. Length of abdomen 2.01. Clypeus and ventral aspect invisible. Legs (Fig. 7) long and slender, grey-brown, setae and hairs similar in colour. On femora scaly setae with a metallic green lustre. Spines dark brown.

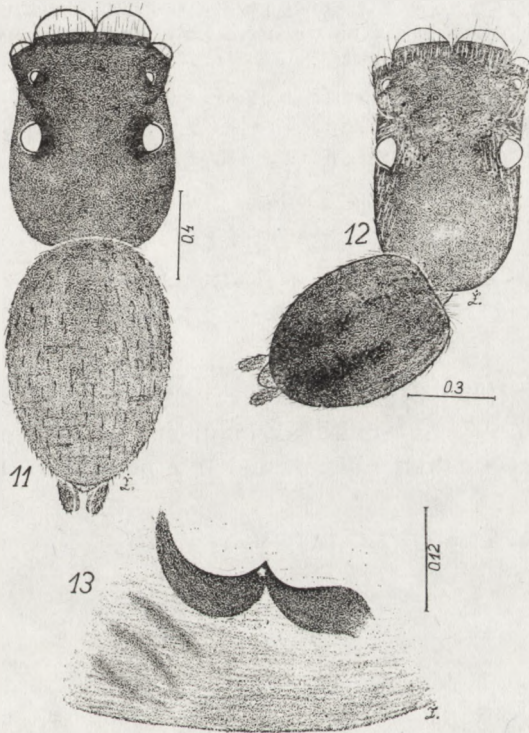
Palpal organ (Figs. 8–10) with a massive oval bulbus, embolus probably on an oval basis. Tibial apophysis short. These characters and the form of cephalothorax indicate the already mentioned affinity with the East African and Madagascan genus *Tomocyrra* Sim. (Prószyński and Żabka 1983).

*Prolinus fossilis* PETRUNKEVITCH, 1958

1958 *Prolinus fossilis* PETRUNKEVITCH, Trans. Conn. Acad. Arts Sci., 41: 339-341.

Material: 1 ♀ — MEW 8571, 1 juv. — MEW 19342.

Female (Fig. 11; 12 — juv.). Cephalothorax dark brown with a constriction behind eyes II. Hairs sparse — whitish and brown. Length of cephalothorax 0.80, length of eye field 0.37, width of eyes I 0.58, width of eyes III 0.46. Abdomen brown, length 0.71. Clypeus dark brown, venter light brown. Legs brown with hairs and spines similar in colour and with tufts of light grey scaly setae with a metallic lustre.



Figs. 11-13. *Prolinus fossilis* PETRUNKEVITCH, 1958: general appearance of female (11) and of juv. female (12), epigyne (13).

Epigyne (Fig. 13) with semicircular strongly sclerotized copulatory openings and fragments of translucent internal structures. The shape of the body resembling the previous genus. Visible fragments of epigyne do not allow to speculate on the affinities. The species described and well documented by PETRUNKEVITCH (1958).

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#### STRESZCZENIE

[Tytuł: Kopalne *Salticidae* (*Araneae*) z kolekcji Muzeum Ziemi PAN w Warszawie]

Praca zawiera opisy i rysunki taksonomiczne trzech gatunków *Salticidae* z eocenckiego bursztynu bałtyckiego. Jeden z nich, *Eolinus balticus*, opisano jako nowy.

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#### РЕЗЮМЕ

[Заглавие: Ископаемые *Salticidae* (*Araneae*) из коллекции Музея Земли ПАН в Варшаве]

В работе содержатся описания и таксономические рисунки трех видов *Salticidae*, заключенных в эоценовый балтийский янтарь. Один из них, *Eolinus balticus*, является новым для науки.