



***Megalyra baltica* Poinar and Shaw n. sp. (Hymenoptera: Megalyridae), a long-tailed wasp from Baltic amber**

The wasp family Megalyridae includes eight living genera of presumed idiobiont ectoparasitoids, most of which are associated with relict primary tropical forests (Shaw 1990b, 2006). Their biology is poorly known except for a few species. Their behavior and host range appear to be diverse since one Australian species, *Megalyra fasciipennis* Westwood, parasitizes cerambycid beetle larvae in wood, while the much smaller Australian *M. troglodytes* Naumann parasitizes sphecoid wasp larvae in mud nests on vertical rock faces (Shaw 1990a). The long ovipositor of many *Megalyra* species, as well as the phylogenetic analysis of Shaw (1990b), suggests that parasitism of immature wood-boring beetles is the ancestral and more generalized behavior for the genus. It is presumed that ancient megalyrids, like many of their modern descendants, would have been attracted to dead and dying beetle-infested trees, where they might become trapped in sap flows, and eventually fossilized as amber inclusions.

The purpose of this paper is to describe a new species of *Megalyra* Westwood recently discovered in a Baltic amber inclusion from Russia. While other megalyrid wasp species have been described from Baltic amber inclusions, this discovery is noteworthy because it is the first fossil megalyrid to be assigned to the extant genus *Megalyra*.

Material and methods. The amber piece containing the megalyrid originated from the Kaliningrad Region in Russia, the westernmost area of Russia located between Poland and Lithuania along the southeastern coast of the Baltic Sea. The amber was re-cut and polished in order to better view the specimen. The final piece of amber containing the fossil (accession # Hy-10-187) was trapezoidal in shape, measuring 17 mm along the greater axis. Baltic amber has been dated at approximately 40–50 million years (Eocene) and the deposits are considered to have originated in a single subtropical-tropical forest that covered a large portion of northern Europe (Weitschat & Wichard 2002). Observations, drawings and photographs were made with a Nikon SMZ-10 stereoscopic microscope. Morphological terminology, measurements and ratios follow those used by Shaw (1987, 1988, 1990a). All measurements are in millimeters unless otherwise noted.

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(Figs. 1–4)

The fossil is well preserved and complete except the right antenna and the last 2 metatarsal segments on the left leg are missing (Figs. 1A–D).

Female. Body length, 6.6 mm; Color silver-black (Fig. 1A); head and thorax (and abdomen to a lesser extent) covered with fine, white, erect setae; setal tufts absent.

Head. Broad, rounded, wider than long (Fig. 1D); length 0.92 mm; width 1.70 mm; face width 0.92 mm; head covered with irregularly positioned small to large foveae (except for longitudinal row of small foveae extending between dorsal ocelli); distance between foveae mostly shorter than their diameters; compound eyes large, prominent, inner margins convex, slightly divergent above; eyes surrounded by band-like border bearing large foveae; eyes bearing microscopic fine, short erect setae; maximum diameter of compound eye 0.81 mm; ocelli large, maximum diameter of lateral ocellus 0.14 mm; distance between lateral ocellus and compound eye 0.22 mm; distance between lateral ocelli 0.22 mm; antennae longer than head and mesosoma combined (Figs. 1C, 4), filiform; scape (antennal segment 1) widest; pedicel (antennal segment 2) shortest; flagellomere 1 (antennal segment 3) longest; remaining flagellomeres sub-equal in length; length of first flagellomere 0.29 mm; width of first flagellomere 0.12 mm.

Mesosoma (Figs. 1B–D). Front margin of mesoscutum convex; length of mesoscutum 0.95 mm; maximum width of mesoscutum 1.76 mm; scutellum separated from large triangular axillae by punctate grooves; propodeum with four large rectangular foveae in mid-line of horizontal face; forewing length 5.0 mm; wing membrane lightly infumate throughout; small stigma present; most veins highly sclerotized (Fig. 2); Rs curving up almost to wing margin; Rs-M reaching wing margin; 1A continuing almost to wing margin; M-Cu1 prominent; Cu1 prominent; M straight; 1mCu prominent; hind wing lightly infumate throughout (Fig. 3); length 3.80 mm; Rs departing from Sc-R at 42% of wing length; all tibia bear-