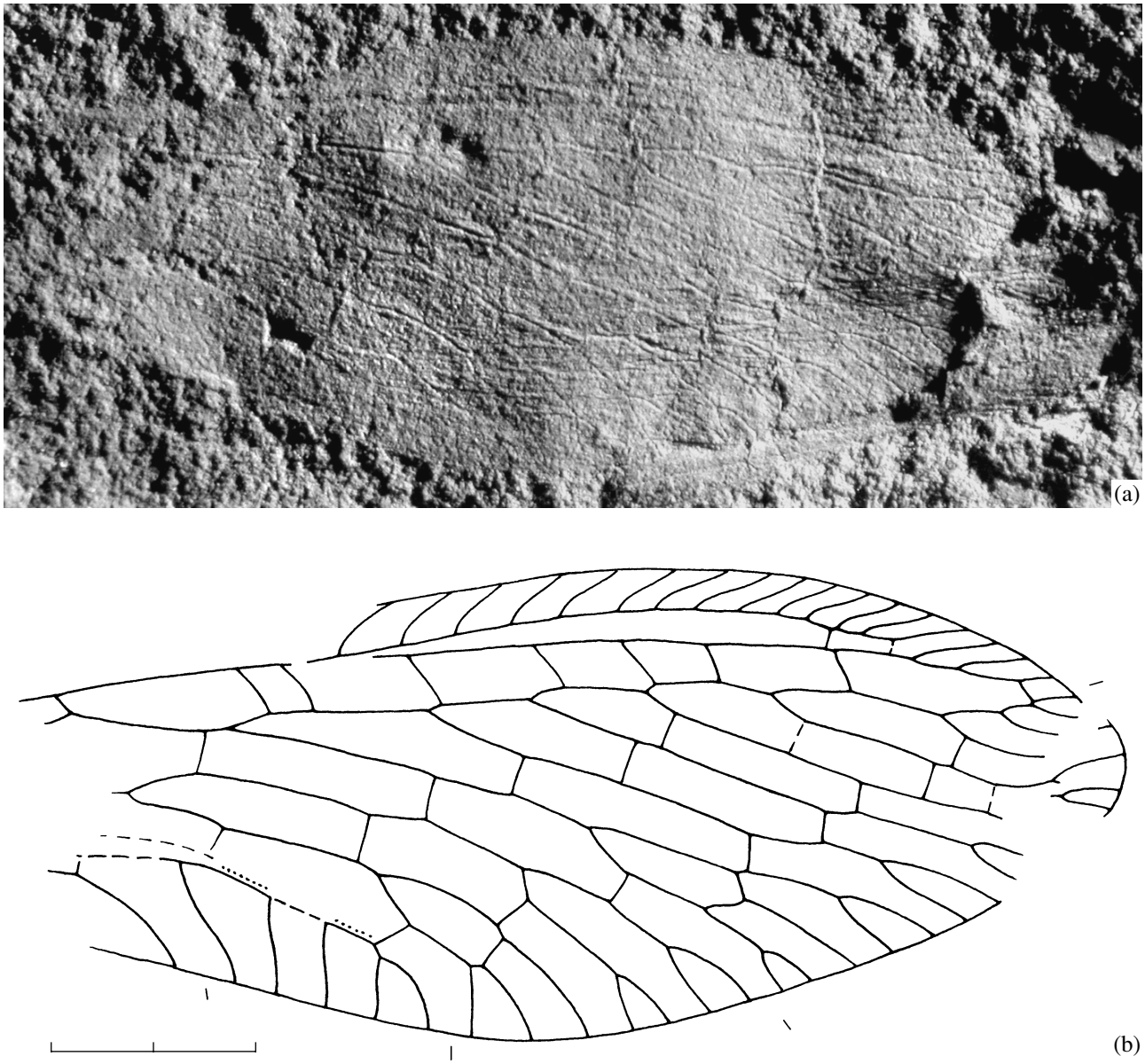

Fig. 2. *Permantispa emelyanovi* gen. et sp. nov., (a) holotype PIN, no. 2099/6, ×14.8; mirror image; (b) wing venation; Krasnoyarsk region, Ilimpeya River, Limptekon Formation.

Permian and Triassic neuropterans) and convex CuA stem in the hindwing. Among permithonids, it is most similar to *Permithone* in the subequal branching of MA and each MP branch, interradial space not being widened basally and with numerous crossveins, number of RS+MA branches, limited end-twigging, and elongate wing with a tornus, but differs from it in SC being connected to R by a crossvein and because of two gradate crossvein series.

R e m a r k s. The wing is assumed to be a hindwing, because a longitudinal apical part of the free MA base is traceable, the cubital veins are weakened, and the precubital flexion line is developed. In living lacewings, it is the hindwings that are more commonly markedly narrowed toward the base, with a tornus beyond the wing midlength and straight posterior margin.

Cubitoanal veins are shortened in both fore- and hindwings of Chrysopidae and most of Mantispidae, as well as in the forewings of some Sisyridae and Hemerobiidae. The new genus differs from the chrysopids in the R+SC not being arched along the wing margin and MA, MP_1, and MP_2 forking more than once each; from the three other families, it differs in the numerous interradial crossveins; and it differs from mantispids, in addition, in that MA forks early. In mantispids, there are normally no more than three regularly spaced interradial crossveins, and MA forks distally; however, very occasionally, there are four crossveins and MA that forks early (Lambkin, 1986b, text-fig. 655).

Table 1. Changes in the forewing characters during the transition from Permithonidae to Archeosmylidae

	Permithone	*Osmythone*	*Babykamenia*	*Archeosmylus*
R+SC arched	not	well	slightly	yes
RS+MA branches	5	7	10	9–10
MA relative to wing width	at 1/2	at 1/2	just posterior	well posterior
MP fork relative to RS+MA fork	very proximal	slightly proximal	very distal	distal
MP end-twigs	8–9	14	22	8–13
CuA pectinate	no	yes	yes	yes
CuP fork	absent	terminal	deep	rather deep
1A end-twigs	4–5	3?	8	3–4
2A end-twigs	2–3	4?	≥2	5–6

In venation, the fossil wing resembles the extant Australian mantispid genus *Ditaxis* McLachlan, 1867 (Lambkin, 1986a, text-fig. 34), and, in some characters, is more similar to its hindwing. However, it differs from the most primitive mantispids (Symphrasinae) and their relatives, the Berothidae, in having cubitoanal veins that are not yet shortened. This necessitates assigning the new genus to permithonids and treating its similarity to mantispids as homoplastic. The appearance of similar forms in these two families apparently indicates that the mantispid lineage originated from Permithonidae.

***Permantispa emelyanovi* Ponomarenko et Shcherbakov, sp. nov.**

Etymology. In memory of geologist N.I. Emelyanov, who passed the specimen on to PIN.

Holotype. PIN, no. 2099/6, right forewing lacking the base and the proximal half of the costal area, deformed apically and along the subcostal and precubital folds (negative impression); Krasnoyarsk region, Tunguska Basin, right bank of the Ilimpeya River 3.3 km downstream of the Ukshunukan River; terminal Permian or basal Triassic, Dvurogino Horizon, Limptekon Formation.

Description (Fig. 2). The hind(?) wing is elongate, narrowly rounded apically, with an anterior margin proximal to the pterostigmal area being nearly straight. The crossveins are few, weak, traceable mainly due to the bends of longitudinal veins, and form two gradate series. No trichosors or nygmata have been found. SC is connected to R in the apical wing quarter (a second sc-r crossvein is more distally visible). The interradial space bears eight inclined crossveins. RS is conspicuously gradate. The RS branches bear only terminal forks, with three distal branches being crowded. MP forks somewhat proximally to RS+MA, with both its branches forking distally, the anterior being somewhat distal to the posterior one. CuA bears five branches; posterior to it, one more vein (CuP or its anterior branch) is preserved. The posterior MP branch terminates at the tornus, and CuP terminates slightly distal to the MP fork. The bases of setae along the veins are traceable.

Measurements, mm: length of incomplete wing, 10.5; total wing length, about 13.

Material. Holotype.

Family Archeosmylidae Riek, 1953

Genus *Babykamenia* Ponomarenko et Shcherbakov, gen. nov.

Etymology. After the Babii Kamen' locality. Gender feminine.

Type species. *B. eskovi* Ponomarenko et Shcherbakov, sp. nov.

Diagnosis. Forewing elongate. Crossveins few. Dense end-twigging along posterior wing margin. Costal area narrow. R beyond junction with SC slightly arched along wing margin. RS origin early, almost level with M_5. RS+MA with eleven close-set principal branches, proximal ones almost parallel to longitudinal wing axis. MA distally running just posterior to wing midwidth. MP forked much later than RS+MA, with more numerous end-twigs than Cu. CuA base long. CuA pectinate. CuP forks more proximally than CuA. 1A pectinate, with more branches than CuA or 2A.

Composition. Type species.

Comparison. It is distinct from *Archeosmylus* Riek, 1953 in its forewing not being subtriangular, R+SC being only slightly arched (nearly straight), RS+MA branches occupying a smaller area, MP forked more distally and profusely, and 1A being multibranched.

Remarks. Similar to permithonid *Osmythone* gen. nov. in wing shape, early RS origin, CuP being forked, and Cu branches occupying section of wing margin shorter than MP branches and as long as 1A branches. Differs from the latter in R+SC being only slightly arched, RS+MA and 1A being more branched, and CuA base being long. Despite several shared characters, *Osmythone* and *Babykamenia* are placed in Permithoninae and Archeosmylidae, respectively, and partly fill the gap between these taxa (see table); in the