

**DESCRIPTION OF NIKOLSKAYANA MIRABILIS, N. G. N. SP., A NEW
BARK-BEETLE PARASITE FROM SOVIET CENTRAL ASIA
(HYM., PTEROMALIDAE)**

by

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In this paper I give a description of an interesting Pteromalid parasite of bark-beetles on *Pistacia* discovered recently in the Turkmenian S.S.R. The species proved to be new to science and to belong to a new genus allied to the European *Perniphora* Ruschka.

Nikolskayana, genus novum

Head in female different from that of male: only as broad as the thorax, but swollen, with frons strongly protruding forward and lower face deeply excavated; scrobes very deep but immargined, converging towards the ocellus, separated from each other by a high interantennal crest, this protruding like a beak over the facial cavity; sides of frons raised below in high blunted lobes above the facial cavity, in side view face excavated between that lobe and a callus at mouth margin. In male head much less swollen, scrobes shallow, interantennal callus less sharp and side-parts of frons only slightly bumpy, lower face slightly excavated. Eyes in both sexes relatively small, short-oval, not prominent. Lower margin of clypeus narrowly emarginate in the middle. Mandibles short, strong, both three-toothed, inner tooth not broad. Genae buccate, temples developed, immargined as well as occiput. Head in posterior view with distinct deep postgenal sulci widely diverging from the upper part of foramen; the latter near to vertex. Facial cavity reticulate, sculpture elsewhere alutaceous. Antennae inserted a little above the middle of face, in female above the facial excavation, in both sexes 13-segmented (11353), rather short, with scapus more (male) or less (female) dilated apically, pedicellus much longer than the first funicle segment, segment of funicle not strongly transverse, clava with perpendicular sutures, ovate-acuminate, without distinct areas of micropilosity.

Pronotum large, collar not separated, the sides weakly converging forward, lateral panels large but thin, the impression broad. Mesoscutum with notauli very shallow and incomplete, indicated only anteriorly. Scutellum nearly smooth, without frenal cross-line; side slightly converging forwards. Metascutellum very narrow. Propodeum very short, hardly sloping, median carina and lateral folds missing, spiracles very small, rounded, postspiracular sulcus distinct; lateral fimbriae weak,

poor. Prepectus very small, triangular, without carinae. Legs very strong, fore femora slightly, hind femora strongly swollen, but without dents; hind coxa also very large, in lateral aspect larger than mesopleura (Fig. 1); hind tibia with two spurs, the inner (longer) shorter than width of tibia; tarsi slender, basitarsi of mid and hind tarsi long. Forewing with long marginal vein separated by a pale break from the short pre-stigma and much longer than the stigmal vein; the latter slightly knobbed and two-thirds as long as the postmarginal vein. Basal cell, basal fold and cubital fold bare, outer margin of wing shortly but distinctly ciliated. Thorax as well as head very weakly alutaceous, nearly smooth.

Abdomen sessile, in female lanceolate and longer than head plus thorax; hypopygium not reaching middle of gaster; first gastral tergite short, its hind margin obtuse-angularly incised. Ovipositor hardly protruding. In male abdomen much shorter, of usual Pteromalid form.

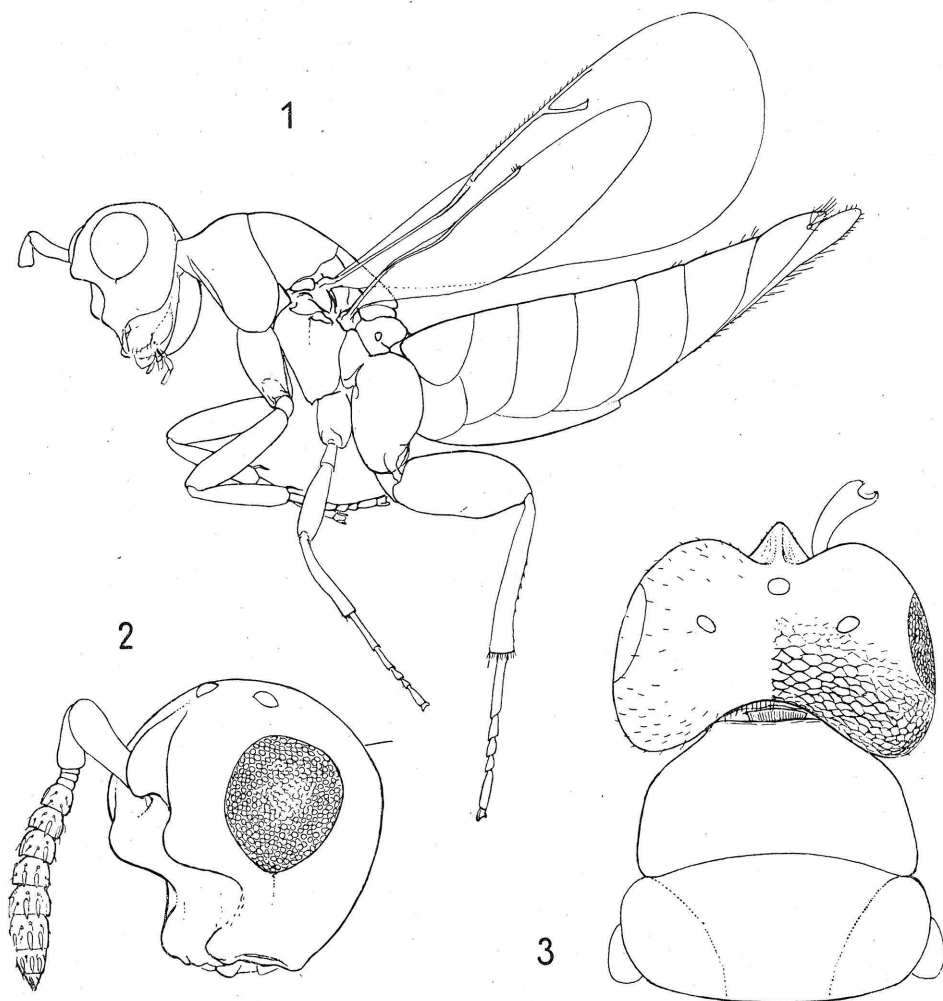
Type-species: *Nikolskayana mirabilis*, n. sp.

The new genus belongs to the Pteromalidae and, among the genera known to me, is certainly, most closely allied to *Perniphora* Ruschka, 1923. With this genus *Nikolskayana* has in common the swollen head with excavated lower face, strong mandibles with only three distinct teeth (the upper tooth is very broad and may be subemarginate in some specimens of *Perniphora robusta* Ruschka), the short antennae with long pedicellus, at least in females, the small eyes, the deep and broadly diverging post-genal sulci, the relatively long marginal vein separated from the pre-stigma by a pale break (reminding one the venation of *Roptrocerus* Ratz., *Dorcatomophaga* Kryger, *Hobbya* Delucchi, etc.), strong legs with femora more or less swollen, etc. Save for *Perniphora* which seems to be the nearest related genus, also *Roptrocerus* Ratzeburg, 1848, *Xiphydriophagus* Ferrière, 1952, and *Habritys* Thomson, 1878, show many common characters, e. g. in the sculpture, swollen head with short antennae and strong mandibles, form of thorax, etc., as already partly stressed by Ferrière, 1952. Some of these characters may prove only convergences due to a similar mode of life of parasites of insects boring in wood or inhabiting timber. *Nikolskayana* as well as *Roptrocerus* and *Perniphora* are bark-beetle parasites, *Xiphydriophagus* attacks the wood-boring *Xiphydria*, and *Habritys* the wood-inhabiting Sphegids (as far as known *Perniphora* and *Habritys* may develop also as secondary parasites; cf. Novák, 1960, and Askew, 1962).

From all these genera the new genus differs by the peculiar horns on face reminding one the truncate and dentate back part of the body of certain species of *Ips*, and from most of them by the antennae with three ring segments in both sexes.

***Nikolskayana mirabilis*, sp. nova**

F e m a l e. — Body dark metallic green, of a similar colour to *Roptrocerus xylophagorum* (Ratz.); antennae, tibiae and tarsi mainly testaceous, femora fuscous, concolorous with coxae and the body. Wings hyaline.



Nikolskayana mirabilis, n. gen. n. sp. (Pteromalidae): Fig. 1. Body of female in side view Fig. 2. Head of female in an oblique lateral view. Fig. 3. Head, pronotum and mesoscutum of female in dorsal view, with sculpture and pubescence of head partly indicated.

Length 1.8 mm.

For head see Figs. 1—3, also what is said in the description of the genus. It is in facial view transverse as 20 : 16; horns and facial excavation deeply reticulate, frons and vertex anterior to lateral ocelli nearly smooth, vertex behind ocelli shallowly cross-reticulate, also temples shallowly reticulate. Malar sulcus rather obliterate, as long as the shorter eye diameter; no malar hollow. Scapus only 1.6 times as long as pedicel, slightly exceeding the vertex level, distinctly dilated in apical third. Pedicellus fully twice as long as broad apically, about as long as first three

funicle segments combined; all three ring segments transverse, subequal, together hardly as long as the first funicle segment; all five funicle segments slightly transverse, sparsely covered with short hairs and low, broad longitudinal sensillae, otherwise smooth; clava shorter than three preceding segments combined.

Thorax almost smooth and bare, only with very sparse and very short, microscopic pubescence, one and a half as long as broad before tegulae. Scutellum almost as broad as long, four times as long as propodeum in the middle. Pubescence of forewing on disc extremely short, indistinct, but costal cell hairy on lower surface.

Abdominal petiole invisible externally, very short. Gaster conical-lanceolate, longer than head plus thorax as 50 : 38 (see Fig. 1). First tergite covering less than one fifth of dorsal surface.

Male. — Length 1.5 mm. Similar to female, but legs less infusate and including coxae and base of abdomen, pale brown. Head different as emphasized in the generic description; in side view less thick, only 11 : 17, and interantennal callus relatively still more raised above the lateral parts of frons. Antennae inserted nearer to centre of face than in female; scapus slightly more expanded apically, pedicellus about 2.5 times as long as broad and nearly as long as the distal ring segment with two basal funicle segments combined; flagellum a little longer and slenderer, at least basally; ring segments less transverse, taken together longer than broad; first funicle segment slightly longer than broad, the second subquadrate; the short hairs of antenna not more conspicuous than in female. Gaster hardly as long as head plus thorax.

Host : *Carphoborus perrisi* Chap., Scolytidae, on *Pistacia*.

Distribution : Turkmenian S.S.R. (Central Asia).

Holotype (female), allotype and two other paratypes (one male and one female) reared in the South of the Turkmenian S.S.R., Serakhs district, from *Carphoborus perrisi* Chap., a pest of *Pistacia*, VI. 1958 by V. Znamenski. Holotype, allotype and one male paratype deposited in the Zoological Institute of the Academy of Sciences of the U.S.S.R. in Leningrad, one female paratype in the Prague National Museum.

I name the genus after Dr. M. N. Nikolskaya, the leading member of the Soviet hymenopterists, who has done much valuable work on Chalcidoidea and was so kind as to let me have the interesting material of *Nikolskayana mirabilis* for description.

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Краткое содержание.

В работе описан новый вид и род хальцид-птеромалид, выведенный из малого фисташкового лубоеда *Carphoborus perrisi* Chap. в южной части Туркменской ССР В. Знаменским.

Новый род принадлежит к семейству Pteromalidae, и, среди мне известных родов, он близок к *Perniphora* Ruschka. Так же, как у этого рода, у *Nikolskayana* голова утолщенная, с выдутым лицом, мандибулы сильные, 3-зубцовые, с очень широким верхним зубцом, усики короткие, с длинным поворотным членником у самки, переднее крыло с длинной маргинальной жилкой, отделенной от престигмы бледным перерывом, ноги сильные, с утолщенными бедрами, итд. Кроме *Perniphora*, также *Roptrocerus* Ratzeburg, *Xiphydriophagus* Ferrière и *Habritys* Thomson являются родами имеющими некоторые общие признаки с новым родом, например скульптуру поверхности головы и груди, форму груди, толстую голову, сильные мандибулы, хотя некоторые из этих признаков вероятно покажутся конвергенциями, вызванными паразитизмом в сходных условиях, у жуков или других насекомых в древесине.

От всех этих родов *Nikolskayana mirabilis* n. gen. n. sp. отличается главным образом странными зубцовыми выростами на лбу и лицу. У самца эти выросты ниже, слабше. Тело зеленое, с желто-бурыми усиками, голеньями и лапками. Длина самки 1,8 мм, самца 1,5 мм.

Род *Nikolskayana* назван в честь выдающей хальцидолога Марии Николаевны Никольской из Ленинграда, которая принесла в своих работах по хальцидам Советского Союза много полезного и интересного, облегчая изучение этой тяжелой группы младшим сотрудникам, и которую мне честь считать своим другом.