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ON A NEW GENUS OF BRACONIDAE (HYMENOPTERA), WITH REMARKS ON THE WING NOMENCLATURE.

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V této krátké práci popisuji zajímavý nový rod lumčíků, který se zdá utvářením těla tvořit přechod mezi dosud většinou uznávanými skupinami *Cyclostomi* a *Cryptogastres*. Utváření hlavy je totožné s druhy skupiny *Cyclostomi*, kdežto tvarem zadečku by tento rod patřil do *Cryptogastres*. Je to další důkaz podřadnosti významu utváření zadečku lumčíků v systematice vyšších jednotek. Potvrzuje také názory některých novějších autorů, kteří řadí *Cheloninae* jen jako tribus sub Helconinae (odpovídá více méně skupině *Polymorphi*), k nimž tvoří přechod zvláště rody *Acampsis* W e s m. a *Allodorus* F ö r s t.

Nový rod, který jmenuji *Rogadinaspis*, s druhem *R. tritoma* n. sp., patří nehledě k nápadnému utváření zadečku do podčeledi *Rogadinae*, k tribu *Hormiini*. Jemu nejblíže se zdá být rod *Acanthormius* A s h m., známý ve třech druzích z Japonska, Šalomounových ostrovů a z Madagaskaru. Ten má zadeček podobný, zuby po stranách 3. tergitu však výraznější a liší se hlavně méně redukovanou žilnatinou křídel. *R. tritoma* je tmavohnědý, někdy zadeček (kromě konce), base tykadel a nohy žlutavé. Velikost 1,4—1,5 mm. Popsán z Čech, kde byl mnou chytán u Velkého Vřešťova a u Chuchle.

Za laskavé zapůjčení některých prací o lumčících děkuji kolegovi P. Starému.

Na konci práce podávám návrh na opravení a sjednocení názvů v žilnatině křídel blanokřídlých tak, jak jsme provedli v české terminologii a podrobně popsali v části *Hymenoptera* ve 2. dílu „Klíčů zvířeny ČSR" (současně v tisku).

* * *

Description of *Rogadinaspis*, new genus (fig. 1).

Body small, head and thorax without any coarse sculpture. Head transverse (seen from above), temples roundedly, slightly converging backwards, posteriorly bordered by a strong, complete, horseshoe-like occipital carina. Frons and vertex vaulted, without horns or impressions, antennae inserted slightly above the centre of face, facial impression not distinct. Clypeus semicircularly emarginate *(Cyclostomi)*. Mandibles small, normal; when closed, forming the lower side of clypeal hole. Maxillary palpi 6-jointed, labial palpi 4-jointed.

Thorax about twice longer than broad, not depressed. Pronotum small, its smooth sides extending to tegulae, large, in form of an equilateral triangle. Mesoscutum with not complete, shallow but nevertheless distinct notauli (parapsidal furrows) in anterior two thirds; its anterior part steeply sloping. Scutellum vaulted, normal, anteriorly with two large pits, separated by a median carina. Dorsal parts of axillae outside of the pits trapezoidal, small, with carinaceous lateral and posterior sides; the part behind the

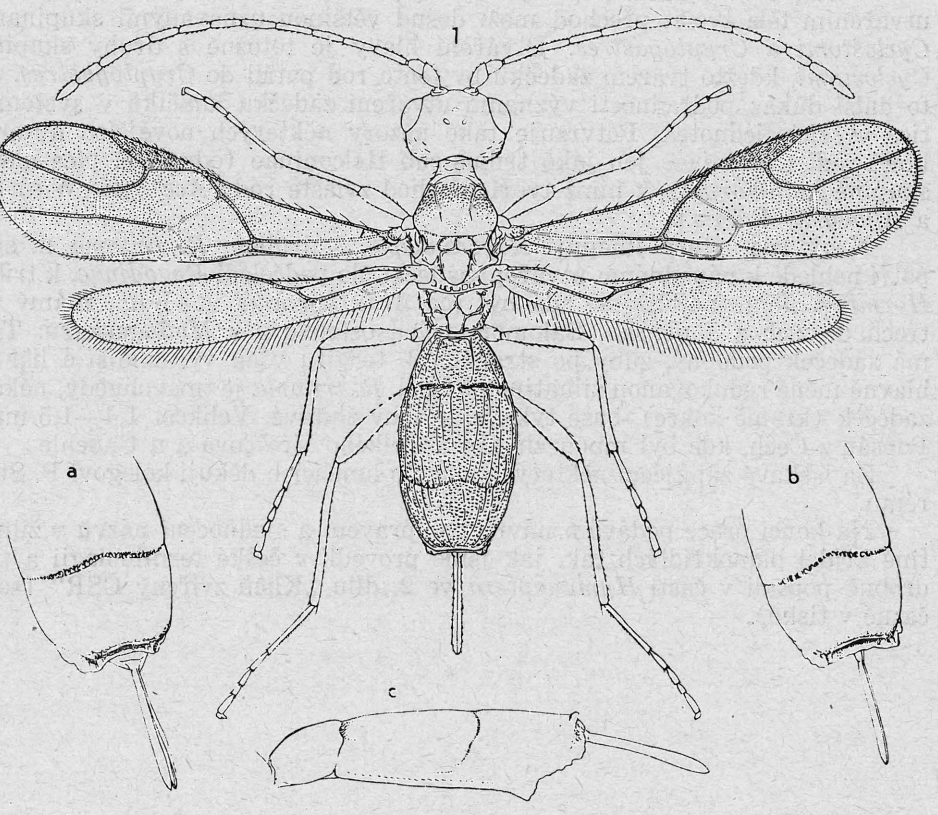


Fig. 1. *Rogadinaspis tritoma* B č k., n. g. n. sp. *(Braconidae)*; a—b) apical end of female abdomen of two specimens; c) female abdomen from the side.

transversal carina deeply concave, this pit carinaceously delimited against the wing base and metanotum. Metanotum small, with about six longitudinal carinae, separated by irregular pits, one of them being in the middle. Propodeum distinctly areolated, with a pentagonal median area, preceded by a short median carina, and with two areas on either side, separated by a (transversal) costula. Mesopleurae without any distinct furrows, but with a smooth grove-like impression horizontaly just below hind part of fore wing base, and with a smooth, pit-like impression at the middle of hind margin. Front margin of mesopleurae carinaceous in lower half.

Wings developed, completely pubescent. Fore wing with a considerably large, triangular pterostigma; prostigma not distinct. Metacarpus and radius reaching the apex of wing, the pterostigmal cell between them large and broad. First radial section archedly curved, second section straight. Only one, second radial cross-vein developed. Media fully developed externally from the basal vein, and originating in the front half of basal vein; medial cross-vein short. Cubitus interstitial, nearly straight, distinctly developed almost up to the outer wing margin. Cubital cells (between cubitus and analis) narrow, first cubital cross-vein (nervulus) slightly postfurcal, second cubital cross-vein distinctly basad from the medial cross-vein. In hind wing only basal cell and a short first cubital cell developed, the latter barely reaching middle of basal cell. Radial and medial veins pale, indistinct, straight.

Legs normal, not thickened.

Abdomen reminiscent of *Chelonini*, oval, apparently formed only by the first three tergites, which are irregularly longitudinaly striated with granulated interspaces. Following tergites retracted under them. First tergite with two fine longitudinal keels. First suture (between first and second tergites) very deep laterally from the middle, but abdomen probably not much movable here. Second suture distinct, crenulated, undulatedly incurved forwards in the middle. Third tergite with archedly raised transversal preapical carina, the low and translucent postcarinal part short in the middle but forming two obtuse, more or less saw-like dents on the sides (figs. 1a, 1b). Ovipositor sheaths considerably protruding (male not known).

Some of the characters described may have only specific value.

Type of the genus: *Rogadinaspis tritoma*, n. sp.

Description.

Female: 1.4—1.5 mm.

Dark brown, with following parts sometimes (holotype) lighter: basal 4 to 5 segments (ring-joint not counted) of antennae, cervical part of pronotum, abdominal tergites 1 and 2, legs, and buccal appendages. In the paratype the abdomen is dark brown, third tergite only indistinctly darker than the preceding two, first three flagellar joints of the antennae are somewhat lighter than the following ones, and femora and tibiae fuscous, tarsi darker apically. Wings infuscated, with two a little more infuscated transversal bands on fore wing, first band at basal vein, the second below pterostigma. First section of media, as well as radial and medial cross-veins, and cubitus and analis basally, very pale, subhyaline.

Head one half broader than long (33:21) when seen from above, smooth and nearly bare, with sparse hairs on temples and lower face. Seen from in front it is nearly round, slightly transverse (33:28), with rather considerably converging cheeks. Relative height of eye 14, width of frons 19.5. Ocelli small, in an equilateral triangle; postocellar line twice shorter than ocellocular line. Antennae inserted at the level between middle o feyes and lower ocular line, apparently 14-jointed, with the indistinct ring-joint 15-jointed, slightly longer than thorax and abdomen together (120:110); scape and pedicel thickened, pedicel only slightly shorter than scape, which is unarmed, not twice longer than broad, obliquely truncate at apex. Ring-joint petiole-like, transverse, translucent. Following segments (flagellum) lengthened, slightly decreasing in length, the first of them about 4 to 5 times longer than broad, the last joint two and a half times longer than broad; flagellum slightly thickened apically.

Thorax apparently bare, with several hairs on the sides of propodeum. Cervical part of pronotum coarsely rugose, the large triangular sides smooth. Mesoscutum narrower than head (26:33), very finely reticulated except the part anterior to the scutellar pits. Scutellum smooth and shining. Bottom of propodeal areolae obsoletely punctured, shining. Wings are shown best on fig. 1; relative length of fore wing 120 (as long as thorax and abdomen combined), width 48, hind wing 106:21. Basal vein meeting with subcosta exactly in the middle of wing length. Legs slender, mid tarsi as long as tibiae, hind tarsi scarcely longer than hind tibiae.

Abdomen as long as head and thorax together, about twice longer than broad (68 : 36, 62 : 32, resp.), only very slightly vaulted along median line, more vaulted at sides (semielliptic in cross section), these sides narrowly vertical, carinaceously bordered below, this carina ending angularly at half the length of third tergite (fig. 1c). Ovipositor sheaths about as long as the second (longest) tergite in the middle, slightly shorter than half the abdomen.

Male not known.

Host not known; taken by sweeping the grassy vegetation, June and August.

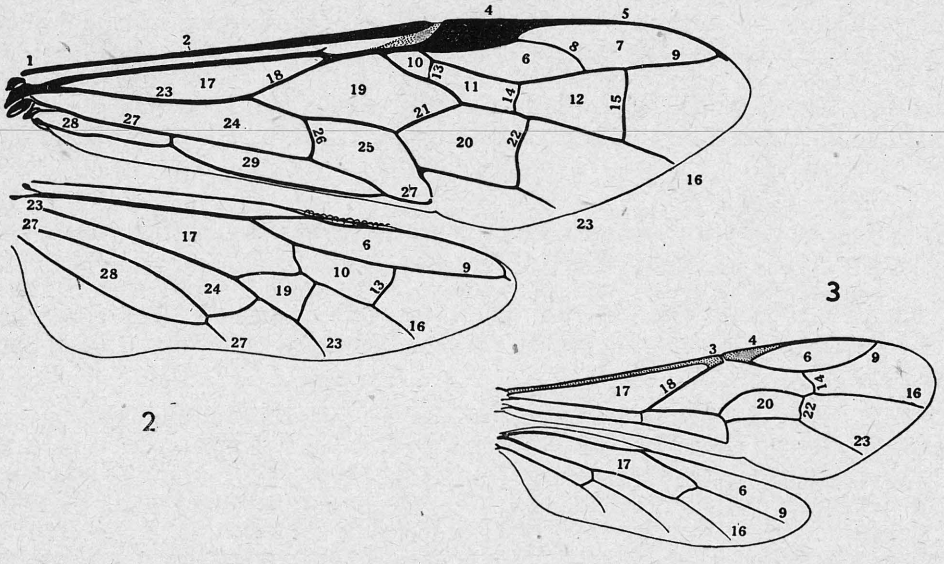
Described from two females, holotype (cat. no. 3090, Nat. Mus. Praha), Velký Vřešťov in north-eastern Bohemia, end of August 1953 (Bouček), and paratype, Chuchle at Praha, Central Bohemia, 24th June 1955 (Bouček).

This genus belongs to *Braconidae-Cyclostomi,* subfamily *Rogadinae,* in the vicinity of *Hormiini,* where it has probably its nearest relatives, e. g. in the genus *Acanthormius* Ashmead 1906 (Proc. U. S. Natl. Mus. **30**:200), which is known as yet in three species from Japan, Solomon Islands and Madagascar; somewhat similar might be also the genus *Gastrotheca* Guérin 1898 (Voyage Abyssinie, 6:348), with the single species *G. furcata* Guérin from North Africa. From both genera, *Rogadinaspis* Bčk. differs by the reduced wing venation, especially lacking first radial cross-vein (previously: cubital) and by the not thorn-like dents on apex of the third tergite. From *Gastrotheca* Guér. it differs moreover by the areolated propodeum and especially by the well developed occipital carina.

The above description of braconid wing venation leads me to consider the terms used in the wing nomenclature and to a discussion of them. I shall return to this problem again in a future paper.

There is an obvious lack of correspondence between the terms used mostly in taxonomy and those employed in comparative morphology, phylogeny and other branches of general entomology. This should be rectified, although it is regrettable that it will involve several changes in the currently accepted terminology.

The main difficulty lies in the fact that the veins *media* and *cubitus* were mistaken by most authors, e. g. by Schmiedeknecht, so that *cubitus* is anterior to *media* in wings according to these authors. Consequently the cells between *radius* and *media* (present designation, previously: *cubitus*) were named wrongly cubital cells, terms, which cannot be used, if we accept that the true *cubitus* is the vein (or a part of it) caudad of the basal cell (Medianzelle in Schmiedeknecht's works). In spite of some differences of opinion of the morphologists the facts given prove the incorrectness of the old terms. Since I believe (as several modern American and English hymenopterists, and H. Haupt in Germany, e. g.) we already can build on these conclusions also in taxonomy, I propose the terms used in the above description and explained below (see also figs. 2, 3).



Figs. 2—3. Wing venation in *Tenthredinidae* (Fig. 2. *Tenthredo mesomelas* L.) and *Ichneumonidae* (Fig. 3. *Hellwigia elegans* Grav., after Obrtel). Numbers: 1, costa; 2, subcosta; 3, prostigma; 4, pterostigma; 5, metacarpus; 6—7, pterostigmal cells; 8, pterostigmal cross-vein; 9, radius; 10—12, radial cells; 13—15, radial cross-veins; 16, media; 17, basal cell; 18, basal vein; 19—20, medial cells; 21—22, medial cross-veins; 23, cubitus; 24—25, cubital cells; 26, first cubital cross-vein (nervulus), 27, anal vein; 28—29, anal cells.

It might probably be useful to simplify intentionally several terms, e. g. *Sc+R+M*, which could be named shortly *Sc*. In this case, there are moreover differences as to whether this vein is fused actually with *media*, or whether the latter is fused basally with *cubitus* (lower vein of basal cell), or whether it *(M)* is extinct basally from the basal vein as some traces e. g. in the basal cell of fore wings of several American braconids seem to prove. These differences of opinion cannot affect any important changes in the nomenclature proposed here by me.

The necessity to change the terms of the "cubital cells" has led me to the changes of several other cell names. I propose to name the cells nearly everywhere uniformely according to the veins which are above them. Thus we get pterostigmal cell (formerly radial cell), radial cells (formerly cubital cells), medial cells (formerly discoidal cells), cubital cells (formerly Submedianzelle and Brachialzelle of S c h m i e d e k n e c h t), anal cells (formerly lanzettförmige Zelle of S c h m i e d e k n e c h t, humeral cell of authors, cellule anale of authors). Two terms are identical with those previously used: costal cell and basal cell (Medianzelle of S c h m i e d e k n e c h t). This will be clear from the wing figures (2 and 3). The above terms are introduced in the Czech terminology in our work on *Hymenoptera*, in "Klíče zvířeny ČSR, II", 1956.

I should appreciate very highly the suggestions and opinions of any readers.