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The Classification of Tenebrionid Beetles of the Tribe Platyscelidini (Coleoptera, Tenebrionidae) of the World Fauna

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Abstract—The history of taxonomic studies of Platyscelidini (Coleoptera, Tenebrionidae) is described. The rank of the tribe and problems of its classification are discussed. The systematic checklist of Platyscelidini of the world fauna comprises 182 species of 8 genera. A new subgenus of the genus *Bioramix*, *Ovalobioramix* (type species *Platyscelis molesta* Bogatshev, 1947), and four new subgenera of the genus *Oodescelis* are described: *Planoodescelis* (type species *Oodescelis kansouensis* Kaszab, 1940), *Montanoodescelis* (type species *Platyscelis sahlbergi* Reitter, 1900), *Splenoodescelis* (type species *Platyscelis turkestanica* Seidlitz, 1893), and *Convexoodescelis* (type species *Platyscelis brevipennis* Kaszab, 1938). The following new synonymy is ascertained: *Trichomyatis* Schuster, 1931 = *Trichoplatynoscelis* Kaszab, 1940; *Planoplatyscelis* Kaszab, 1940 = *Platynoscelis* subg. *Pleioplatyscelis* Kaszab, 1940; *Platyscelis* Latreille, 1818 = *Kaszaboscelis* Löbl et Merkl, 2003; *Oodescelis ovalis* (Ballion, 1878) = *O. chinensis* Kaszab, 1962; *O. oblonga* (Ballion, 1878) = *O. kuntzeni* Kaszab, 1940 = *O. gebieni* Kaszab, 1940; *O. polita* (Sturm, 1807) = *O. minimus* Motschulsky, 1860 = *O. arnoldii* Skopin, 1964; *O ovulum* (Seidlitz, 1983) = *O. latipleura* Kaszab, 1940; *O. somocoeloides grandis* Skopin, 1965 = *O. grandis alticola* Skopin, 1965; *O. acuta* Kaszab, 1940 = *O. semenoviana* Bogatshev, 1946 = *O. dispar* Skopin, 1965; *Bioramix waziristanica* (Kaszab, 1940) = *Platynoscelis paktiana* Kaszab, 1974; *Bioramix montana* (Kaszab, 1960) = *Platynoscelis subalpestris* Kaszab, 1973; *Bioramix conradti* (Seidlitz, 1893) = *Platynoscelis pseudohelops* Bogatshev, 1947; *Bioramix faldermanni* (Seidlitz, 1893) = *Platynoscelis auliensis* Kaszab, 1940 = *Platynoscelis duplicata* Kaszab, 1940 = *P. blaptiformis* Bogatshev, 1946; *Myatis humeralis* Bates, 1879 = *M. quadriticollis* Bates, 1879 = *M. variabilis* Bates, 1879 The following new names are proposed: *Bioramix punjabensis* for *Platynoscelis championi* Kaszab, 1940, non Reitter, 1891; *Bioramix schawalleri* for *Platynoscelis kaszabi* Koch, 1965, non Gridelli, 1954. *Oodescelis grandis* Skopin is downgraded to *O. somocoeloides grandis* Skopin, 1965. The following new combinations are established: *Bioramix haafi* (Kaszab, 1960), *B. bechynei* (Kaszab, 1960), *B. kulzeri* (Kaszab, 1960), *B. dubiosa* (Kaszab, 1940), *B. blairi* (Kaszab, 1940), *B. fairmairei* (Kaszab, 1940), *B. gridelli* (Kaszab, 1940), *B. ovata* (Kaszab, 1940), *B. sikkimensis* (Kaszab, 1940), *B. subaenescens* (Schuster, 1940), *B korschefskyi* (Kaszab, 1940), *B. chinensis* (Kaszab, 1940), *B. freudei* (Kaszab, 1970), *B. klapperichi* (Kaszab, 1960), *B. paghmanica* (Kaszab, 1960), *B. stoeckleini* (Kaszab, 1960), *B. rotundicollis* (Kaszab, 1940), *B kashmirensis* (Kaszab, 1940), *B. glacialis* (Kaszab, 1975), *B. laeviuscula* (Fairmaire, 1891), *B. espanoli* (Kaszab, 1961), *B batesi* (Kaszab, 1940), *B. costipennis* (Bates, 1879), *B. striatella* (Fairmaire, 1891), *B. falsa* (Kaszab, 1961), *B. monticola* (Kaszab, 1940), *B. gigantean* (Kaszab, 1974), *B. haarlovi* (Kaszab, 1958), *B. afghanistana* Gridelli, 1954), *B. lindbergi* (Kaszab, 1973), *B. tuxeni* (Gridelli, 1954), *B. graciliodes* (Kaszab, 1970), *B. delerei* (Kaszab, 1960), *B. gracilipenis* (Kaszab, 1960), *B. granulipennis* (Kaszab, 1960), *B. scheerpeltzi* (Kaszab, 1960), *B. bogatschevi* (Kaszab, 1970), *B. lucida* (Gridelli, 1954), *B. waziristanica* (Kaszab, 1940), *B. montana* (Kaszab, 1960), *B. cylindrica* (Kaszab, 1960), *B. rectangularis* (Kaszab, 1960), *B. hirtipennis* (Kaszab, 1960), *B. ovipennis* (Kaszab, 1960), *B. horni* (Kaszab, 1940), *B. szekessyi* (Kaszab, 1938), *B. sinuatocollis* (Reitter, 1901), *B. molesta* (Bogatshev, 1947), *B. gebieni* (Kaszab, 1940), *Trichomyatis pamirensis* (Kaszab, 1940), *T. tadzhika* (Bogatshev, 1952), *T.rugicollis* (Kaszab, 1960).

The world fauna of the tribe Platyscelidini includes 182 species of 8 genera. The group possesses the Palaearctic range and its southern border coincides with part of the southern border of the Palaearctic Region, running along the Himalayas. Mountain regions of Middle and Central Asia, Himalayas, and Sino-Tibet mountains are the main centers of species diversity. Representatives of the tribe are characteristic elements of the terrestrial fauna of Asiatic mountain regions; some species are pests of some agricultural and pasture plants. The taxonomy of the tribe elaborated by Kaszab (1940) in detail, was sufficient for that time, but now is outdated and needs a significant revision. Kaszab had insufficient material from Central Asia and Kazakhstan in his possession, whereas nearly half of all species of Platyscelidini

dwell in this region. Because of the incorrect labeling of the collected material, data on the species distribution were insufficiently used during establishing of the classification of the tribe. Thus, the insufficiently studied fauna of Platyscelidini of Central Asia and Kazakhstan and the necessity of the revision of the generic and, especially, subgeneric systems of the tribe stipulated the relevance of our investigations. The voluminous material accumulated during long years at the Zoological Institute, Russian Academy of Sciences (St. Petersburg) (ZIN) and some other zoological institutions of Russia and countries of the former USSR allowed making carrying out these investigations.

The present publication is based on the revision of the fauna of tenebrionid beetles of the world fauna. It is based on the results of studies of collections of ZIN; the Zoological Museum of Moscow State University (ZMM); K.V. Arnoldi (Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow); Hungarian Museum of Natural History (Budapest), and the Zoological Museum in Dresden. The material collected by the author in Kazakhstan, Kirghizia, Uzbekistan, and Tajikistan in 1988 and 1989 was also examined. I have also studied the material provided for examination by courtesy of I.A. Belousov, B.M. Kataev, O.N. Kabakov, A.G. Koval (St. Petersburg), S.V. Ovchinnikov (Bishkek), I.I. Kabak, E.V. Ishkov (Alma-Ata), I.K. Lopatin (Minsk), V.A. Mikhailov (Dushanbe), V.G. Mordkovich (Novosibirsk), and V.V. Yanushev (Moscow). During elaboration of the taxonomy of the group, the type specimens from the following zoological organizations were examined: ZIN; Museum of Odessa State University; Termeszettudomanyi Muzeum (Hungarian Natural History Museum, Budapest); Naturhistorisches Museum (Vienna), Zoologische Staatsammlung (München), Zoologist Museum (Copenhagen), Deutsches Entomologisches Institut (Eberswalde), Museum für Naturkunde der Humboldt-Universität (Berlin), Zoologisches Forschungsinstitut und Museum Alexander Koenig (Bonn), Staatlisches Museum für Tierkunde (Dresden), and the British Museum (Natural History) (London).

A total of more than 20000 specimens were examined, including 150 type specimens.

History of Studies of the Tribe Platyscelidini

The first species of the tribe was described by Pallas (1781) as *Tenebrio hypolithus*. Sturm (1807) described *Blaps polita*, at present included in the genus *Oodescelis*. The first genus of the tribe, *Platyscelis*, was established in 1818 by Latreille. Latreille gave a brief diagnosis of the genus, demonstrated its differences from the closely related, in the Latreille's opinion, the genus *Pedinus*, and included *Blaps polita* in the taxon. In the catalogue by Dejean (1821), *Platyscelis* included *P. hypolithus* and *P. melas* Illiger (the latter name is nomen nudum, see Sherborn, 1922–1932). Later, Fischer-Waldheim (1983–1824) described *P. melas*, *P. gages*, and *P. rugifrons* from Russia. Germar (1824) described one more species of the tribe under the name *Blaps rugifrons*. For a long time, *P. rugifrons* Fischer-Waldheim and *B. rugifrons* Germar were considered as belonging to the same species. The question of the authorship was solved by entomologists in different ways, until Seidlitz (1893) demonstrated that the work by Germar had appeared somewhat earlier than the description made by Fischer-Waldheim, and Germar should be considered the author. However, Fischer-Waldheim published his tables with drawings of the new species in 1823, and descriptions of species, in 1824. One of the tables contains a drawing of the species named as *Trachyscelis rugifrons* (in the description, *Platyscelis rugifrons*, i.e., figure caption, probably, contains a misprint). According to the International Code of Zoological Nomenclature (1999, Article 12.2.7), it is sufficient for the validity of the name. Hence, Fischer-Waldheim must be considered the author. I have examined the type specimens of *P. rugifrons* Fischer-Waldheim. This species differed from *B. rugifrons* Germar. So, the name *B. rugifrons* Germar was substituted by the oldest synonym, *Platyscelis brevis* Baudi, 1876, in order to eliminate the secondary homonymy (Egorov, 1990).

In the monograph by Latreille (1825), the genus *Platyscelis* (the name is given in French as "Platyscele") was characterized in more detail. On the basis of the structure of the male tarsi and the shape of the anterior margin of the clypeus, the author, including the genus in the tribe Blapsides, analyzed differences between *Pedinus*, *Dendarus*, *Phylan*, *Opatum*, and *Blaps*. In 1827, Berthold published the German translation of the Latreille's (1825) monograph, where he used the Latin spelling of *Platyscelis*. Until recently, all the authors accepted the following authorship for *Platyscelis*: Latreille, 1825 or, less frequently, Berthold, 1827. However, in "Nomenclators" by Sherborn (1922–1932) and Neave (1940), the authorship was properly given as Latreille, 1818. The complicated problem concerning the type species of the genus

Platyscelis, following the recognition of the Latreille's (1818) authorship will be discussed below.

The next 3 new species, *P. reflexus* Mannerheim, 1825, *P. picipes* Gebler, 1833, and *P. angustata* Faldermann, 1835, were described from the territory of the former USSR. Soon, a new genus, *Oodescelis*, was separated from *Platyscelis* by Motschulsky (1845). The author pointed to a more oval shape of the body and to a similar width of the pronotum and elytra (in other *Platyscelis*, the pronotum is narrower that the elytra) as the main characters differing *Oodescelis* from other *Platyscelis*; however, he did not mention clearly which species must be included in the new genus. The latter circumstance, in the Seidlitz's (1893) opinion, left the question about the authorship open. At present, according to the International Code of Zoological Nomenclature (1999, Article 11), the name sufficiently satisfies the criteria of validity, and Motschulsky should be recognized as the author. In the work by Solier (1848), the genus *Platyscelis*, including *P. hypolithos*, *P. rugifrons*, *P. melas*, and *P. gages*, was characterized in detail; a new species from the Crimea, *P. spinolae*, was also described. For the first time, the author distinguishes *P. melas* and *P. gages* from other species by the presence of a tooth on the fore femur.

Lacordaire (1859) was the first, who considered the tribe in its modern interpretation). In his "*Pedinides*", Lacordaire distinguished the group *Platyscelides* (including the genera *Platyscelis*, *Psectropus*, *Oncotus*, and *Ammidium*) and as well other groups (*Pedinides* sensu stricto, *Platynotides*, and *Blapstinides*). As it was shown later by Kaszab (1940), the three last genera (*Psectropus*, *Oncotus*, and *Ammidium*) were erroneously included in the tribe. Lacordaire found no reasons to separate *Oodescelis* and considered this name a synonym of *Platyscelis*.

The poor European fauna of Platyscelidini was virtually entirely revealed till the middle of the XIX century. As a rule, *P. melas*, *P. polita*, and *P. gages* were mentioned in publications on Coleoptera (Redtenbacher, 1849, 1958, 1974; Bach, 1856; Jacquelin du Val, 1861). The last European species of the tribe, *Platyscelis hungarica*, was described from Hungary by Frivaldszky (1865). At the same time, the study of the fauna of Russia continued. On the basis of the material collected by expeditions of L. Schrenk, M. Semenov, and M. Severtsov, Motschulsky (Motschulsky in Gebler, 1859; Motschulsky, 1859) described *P. striatus* and *P. intermedius*, which appeared to be a junior synonym of *P. rugifrons* F.-W.; and later (Motschulsky, 1860), *O. minimus* and *O. attenuatus*. Because of a too brief description of the two last species, they were rarely mentioned in the subsequent publications (e.g., Gemminger and Harold, 1870; Heyden, 1880). Nevertheless, these names must be considered valid, and these species taken into consideration in the revision of the genus *Oodescelis* (their status will be discussed below). Publication of the results of examination of the Dejean's collection of tenebrionid beetles (Baudi, 1876) was the next noticeable work. There, the author listed 7 species of the tribe and described one new species, *P. brevis*, from Dauria.

Ballion (1878) gave rise to the study of the rich fauna of the Chinese Platyscelidini. He described 6 new species of *Platyscelis* from Kuldzha ("Kulja"), which were correctly interpreted by Skopin (1973) on the basis of the study of the types. Bates (1879) examined the material of the Stoliczka's expedition to Kashgaria and described the new genera *Bioramix*, *Chianalus*, and *Myatis*. A significant number of taxa of Platyscelidini from Central Asia was established by Kraatz (1882a; Heyden and Kraatz, 1882a, 1882b, 1883, 1883, 1886). Among them, it is important to mention the description of the new genera *Platyscelis*, *Faustia* Kraatz, 1882, and *Somocoelia* Heyden et Kraatz, 1882. Kraatz insufficiently considered the variability of some characters of adult beetles; as a result, many names were later synonymized. The catalogue by Heyden (1880–1881) can be mentioned as a summarizing review of tenebrionid beetles of the tribe from Siberia and Turkestan (including Chinese Turkestan); in this catalogue, a detailed bibliography and data on the distribution for all the known species from this territory were given. In this catalogue, the genus *Oodescelis* was for the first time treated as a subgenus of the genus *Platyscelis* and included *P. polita*, *P. gages*, *P. minima*, and *P. attenuata*. In 80s of the XIX century, reports on findings of new species from China continued to appear (Fairmaire, 1886, 1888). Reitter (1886, 1889) examined a part of the material collected by expeditions of Przhewalski and Potanin; as a result, 7 new species of the genera *Faustia*, *Platyscelis*, and *Helops* were described. Later, Reitter (1901b) established a new genus, *Euryhelops* (still within Helopina), for *Helops subaeneus*; only Kaszab (1940) quite properly included this species in *Bioramix* (*Platynoscelis* sensu Kaszab, 1940). *Faustia siningensis* Frivaldszky, 1889 supplements a list of species from China. The genus *Microplatyscelis* Kaszab, 1940 was described later for *Faustia seriepunctata* Reitter in Heyden

(1890) from Turkestan. One more new species, *F. laeviuscula* Fairmaire, 1891, was soon described in the genus *Faustia*. Reitter and Fairmaire in their papers interpreted the genus *Faustia* in a way different from that of the author of this taxon (Kraatz, 1882a). Therefore, all *Faustia* species, described by these entomologists, do not belong to the subgenus *Faustia* of the genus *Bioramix* in its current interpretation. The new genus *Botiras* Fairmaire, 1891 was described for 3 species from Kashmir. The author, relating this genus to *Platyscelis* and *Oncotus*, pointed out that *Botiras* differs from other genera of the tribe in the shape of the pronotum, structure of the tarsi, and shape of the prothoracic process. Later this genus was included in *Bioramix* by Blair (1923) or in *Platynoscelis* by Kaszab (1940), because the characters mentioned were insufficient for the distinguishing of the genus.

A large summarizing review was published in 1993 by Seidlitz (1893), who described 19 new species and revised all species known at that time, excluding species from Kashmir and the Himalayas. For the first time, the author proposed a detailed classification of Platyscelidini. All species of the tribe were included in the genus *Platyscelis*, subdivided into the following subgenera: *Pleiopleura* (1 species), *Platyscelis* (10 species), *Leipopleura* (= *Faustia* Reitter, non Kraatz) (6 species), *Platynoscelis* (= *Faustia* Kraatz, = *Somocoelia* Kraatz) (16 species), and *Oodescelis* (15 species). In the review, keys to species, brief data on their distribution and depositaries of the types were given.

In the end of the XIX century, publications with description of new taxa of Platyscelidini continue to appear. In his review of Heteromera of Japan, Lewis (1895) recorded *Platyscelis strigicollis* from Japan, which, as it was revealed later, is quite similar to the Chinese *Platyscelis subcordata*. Reitter (1896, 1899, 1900, 1901a, 1901b) described several new species. Three new species from northern India were described by Fairmaire (1896, 1898); 2 of these as members of the genus *Tagonoides* (Blaptini) and 1 species, of *Botiras*.

At the beginning of the XX century, the composition of the tribe continued to grow owing to new species described from China (Schuster, 1915, 1923; Blair, 1923), Kashmir (Gridelli, 1934), and Afghanistan (Schuster, 1936). Publication by Reinig (1931, 1932) on the fauna of Pamir-Alai were important; because contained characteristics of 7 species and description of the new genus *Trichoplatyscelis*. The paper includes detailed data on the ecology, distribution, and morphological variability of each species; the dependence of the variation of some structures on the altitude and some other factors is also discussed. A key to species of the genus *Myatis*, written by Schuster, is also given. Thus, a rather voluminous material on tenebrionid beetles of the tribe was accumulated in the end of the 30s of the XX century; this material needed generalization. The catalogue by Gebien (1938) included already 83 species of 5 genera, *Platyscelis*, *Chianalus*, *Myatis*, *Trichomyatis*, and *Trichoplatyscelis*.

The next stage in the study of the group is associated with the scientific actibity of Kaszab, the most qualified specialist on tenebrionid beetles. Several papers of this author with description of new species appeared in 1938 (Kaszab, 1938a, 1938b, 1938c). One more paper treated on tenebrionid beetles of Hungary (Kaszab, 1938d); it also included species of *Platyscelis*. Finally, in his short communication, Kaszab (1938e) reestablished the generic status of *Somocoelia* [Seidlitz (1893) included this taxon in *Platynoscelis*]; however, he erroneously included this genus in the tribe Blaptini on the basis of the structure of the tarsi.

In his revision of the world fauna of Platyscelidini, Kaszab (1940) included 130 species of 8 genera, described 2 new genera, and 57 new species. The subgeneric classification was significantly revised: the taxonomic status of many genera and subgenera (sensu Seidlitz, 1893) was changed and the structure of the male genitalia was taken into consideration for the first time; in most cases, it resulted in obtaining reliable characters for the species identification. In this revision, data on geographical distribution were summarized, brief data on the mode of life of adult beetles were given; the center of the origin of the group was assumed. Kaszab's monograph, however, has some defects. In addition to some nomenclature inaccuracies, the author, in my opinion, sometimes exaggerated the significance of the morphological characters of the aedeagus, which can also vary. Because of the lack of a material for comparison, the variability of other morphological structures frequently was also not taken into consideration, resulting in the description of deviating forms as separate species. Kaszab also possessed a small amount of badly labeled material from the territory of the former USSR; he had no possibility to examine rich collections of ZIN and ZMM and the types of species described by Fischer-Waldheim, Motschulsky, Ballion, and Bogatshev. All this resulted in the appearance of annoying inaccuracies in the

taxonomic part and as well in the general part, especially in the chapter on zoogeography. Since the publication of this book, the classification of Platyscelidini has remained virtually changeless till recently.

In 50–70s of the XX century, Bogatshev (1939, 1946, 1947, 1952, 1961) described several new species. Later Skopin (1958, 1961, 1964, 1965, 1966, 1968) was made a great contribution to the study of the fauna and ecology of Platyscelidini and also published keys to species (Skopin, 1961, 1965, 1968). This author also described the latest genus in the tribe till the present, *Somocoeloplatys* Skopin, 1968, relating this genus to *Bioramix* and *Somocoelia*. The publication on the results of examination of the Ballion's types by Skopin (1973), unknown to entomologists for a long time, was very valuable. This allowed refining the status of many species of the genus *Oodescelis*.

During the same years, investigations of the fauna of Afghanistan continued. Gridelli (1954, 1955) and Kaszab (1958, 1960, 1970, 1973, 1974) on the basis of the material collected by several expeditions described 33 new species and 1 new subgenus. By the end of the 70s, several new species from Kashmir, China, and Middle Asia had been described by Kaszab (1961a, 1961b, 1962a, 1962b, 1975). The total number of new species of the tribe Platyscelidini, described by Kaszab, was 91 (Papp and Seeno, 1981) (according to my data, 95 species). In addition, it is necessary to note an important taxonomic publication by Koch (1965), who examined the types of species described by Fairmaire (storied in Paris), unknown to previous authors. The paper resulted in the refining of the status of 5 species of the genera *Bioramix* and *Oodescelis*.

The results of my investigations were published in a series papers with description of new species, taxonomic and nomenclature notes, and reviews of some genera and subgenera (Egorov, 1987, 1989a. 1989b, 1989c, 1990a, 1990b, 1990c, 1990d, 1990e, 1991a, 1991b, 1991c, 1992, 1993, 1998a, 1998b, 1999, 2002).

Recently, 2 papers on the taxonomy of the tribe Platyscelidini were published. In one of these, Ren and Yu (2002) characterized tenebrionid beetles of the tribe Platyscelidini from deserts and semideserts of China and described 2 new species. The European coleopterologists Löbl and Merkl (2003) reanalyzed designations of the type species of the genera *Platyscelis* and *Oodescelis*; on this basis, they made many changes in the nomenclature of the taxa mentioned. Unfortunately, the authors did not take into consideration some important publications on the topic (e.g., Egorov, 1989b, 1999). The main problems, allegedly solved by the authors, namely, the establishing of the type species of the genus *Platyscelis* and relations between *Platyscelis* and *Oodescelis*, have been already known to me since 1990. At that time, appellation to the International Commission on Zoological Nomenclature was also prepared; in this appellation, the situation was characterized in detail and a reasonable solution of it was suggested; this solution provided the retaining of the stability of the taxon (Egorov, 1991c). In 1993, the verdict of the commission was published (OPINION 1729): after a discussion, the commission agreed with my arguments. The verdict stated that all the previous fixations of the type species for the genus *Platyscelis* Latreille, 1818 were declared void and *Tenebrio hypolithus* Pallas, 1781 was declared the type species. *Blaps polita* Sturm, 1807 was established as the type species of the genus *Oodescelis* Motschulsky, 1845 by the subsequent designation (Kaszab, 1940).

A list of species given in the paper by Löbl and Merkl (2003) corresponds mainly to the classification by Kaszab (1940) and is not based on a new revision of the group. On the one hand, not all species, described till the present, were included in these 2 genera and, on the other hand, some species are mentioned whose names are junior synonyms. From the publication, it is unclear, why some taxonomically remote species were included in the same subgenus [e.g., *Platyscelis arnoldii* (Skopin, 1964) and *Platyscelis kansouensis* (Kaszab, 1940)]. Nomenclature changes in the above publication are made on the basis of insufficient acquaintance with the history of the problem and resulting wrong conclusions and are, therefore, erroneous. The suggested classification of 2 genera is not really associated with a modern revision of the group; therefore, it would be unreasonable to use it in the Catalogue of Palaearctic Coleoptera, which is now being prepared for press. In this context, I suggest that new nomenclatural acts and names concerning the genera *Platyscelis* and *Oodescelis* should be excluded from the paper by Löbl and Merkl (2003). I hope that my colleagues studying the entire spectrum of the literature on the question, will agree with my arguments, and will not disorder the elaboration of the classification of Platyscelidini.

Finally, it should be noted that the convergent similarity between Platyscelidini and some taxonomically remote groups of beetles occasionally resulted in the

description of evidently unrelated forms within the tribe. For example, *Platyscelis labialis* F.-W. proved to be a species from the genus *Zabrus* (Kraatz, 1882b) and *Leipopleura gaditana* (Melichar, 1912), a species from the genus *Oreomela* Jack. (Chrysomelidae). Reitter (1895, 1899) described 2 species under the name *Platyscelis hauseri*, and the first of these species was similar to *Prosodes phylacoides* Fisch.

Taxonomic Position of the Tribe Platyscelidini in the Family Tenebrionidae

The tribe Platyscelidini belongs to a group of tribes of the family Tenebrionidae, which is usually ranked as a subfamily (Watt, 1974; Skopin, 1975; Kwieton, 1982). Earlier, this taxon was spelled Platyscelini (Kaszab, 1940; Bogatshev, 1946; Skopin, 1965). I demonstrated the necessity of the change of this name into Platyscelidini (Egorov, 1990a). In publications of contemporary authors, the tribe is related to Opatrini and Blaptini, although it is distinctly separated morphologically from these tribes. Platyscelidini retained some structures typical, in my opinion, of ancestral forms of all the three tribes (monophyletic origin of this group of tribes is also accepted by the majority of specialists): membranous structures strongly developed, male fore and middle tarsi dilated and pubescent ventrally, ventral side of the body usually with developed pubescence. One can assume that a weak adaptation of Platyscelidini to arid landscapes advantaged these characters; tenebrionid beetles of the tribes Opatrini and Blaptini dominate in these landscapes. Undoubtedly, advanced characters are also characteristic of the tribe Platyscelidini. In particular, the male copulatory apparatus in this group bears distinct features of specialization, manifested in the fusion of the parameres and the increase in relative size of the basal part of the tegmen of the aedeagus. Analogous processes also occur in Blaptini (Medvedev, 1968, 2001). If the morphological affinity of 3 tribes is undoubted, no common opinion on the phylogenetic relations inside this complex of tribes exists. In publications of the XIX century, Platyscelidini were related to pedinoid tenebrionids on the basis of the structure of the male fore and middle tarsi (Lacordaire, 1859; Baudi, 1876; Seidlitz, 1893). Kaszab (1940) demonstrated that this character appeared in different, sometimes taxonomically remote groups of tenebrionid beetles and, therefore, cannot be used as the main character for establishing the relationship between the tribes. On the basis of the structure of the epipleura of the elytra and also of the shape of the anterior margin of the clypeus, the author related Platyscelidini and Blaptini. Medvedev (1968) also pointed to closer relationship between Platyscelidini and Blaptini in comparison with Opatrini, substantiating his statement with data on the structure of the genitalia and mouthparts. In the cladogram constructed by Kwieton (1982) on the basis of the Skopin's (1975) classification of Tenebrionidae, Platyscelidini were treated as a group diverged from the main branch earlier than Blaptini and Opatrini. In the original cladogram, however, Kwieton showed all three groups diverging from a single common root.

An analysis of the published data on the morphology of the tribes Blaptini and Opatrini and accurate examination of the structure of Platyscelidini allowed me to agree with the point of view by Kaszab (1940) and Medvedev (2001) that relate Blaptini and Opatrini. This statement is confirmed by a similar structure of the male genitalia, epipleura of the elytra, straight anterior margin of the clypeus, some peculiarities in the structure of the mouthparts, and also larval characters of both the tribes mentioned by Keleinikova (1968). The genus *Somocoelia*, treated by some authors as a genus transitional to Blaptini (Bogatshev, 1965), in my opinion, is a specialized group possessing a common origin with *Bioramix*. The similarity in the appearance of some Blaptini and Platyscelidini (*Itagonia* and *Oodescelis*, *Gnaptorina*, and *Bioramix*) attracts attention; this similarity is corroborated by the similarity of some morphological structures (e.g., a tooth on the fore femur). Such examples should be probably treated as parallelisms.

For the first time, the taxon concerning the tribe Platyscelidini was established by Lacordaire (1895) as a subdivision of the tribe *Pedinides* (together with *Platynotides*, *Pedinides* sensu stricto, and *Blapstinides*). Seidlitz (1893) accepted this group as one of 3 sections of the subfamily Pedinini; its taxonomic rank completely corresponded to the tribe. The group was included in the known key to subfamilies and tribes of tenebrionid beetles by Reitter (1917) as a tribe of the subfamily Blaptinae. In subsequent publications, Platyscelidini were treated as the tribe (Kaszab, 1940; Volgin, 1951; Bogatshev, 1965; Keleinikova, 1968; Kwieton, 1982; Medvedev, 2001) or subfamily (Reining, 1931; Medvedev, 1968). I treat Platyscelidini as a distinctly separate tribe of the family Tenebrionidae.

Problems of the Classification of the Tribe

Problems associated with the creation of the natural classification of the tribe are rather complicated and

are not solved completely. This is preconditioned, on the one hand, by insufficient data on some taxa from the Himalayas and Sino-Tibet mountains and, on the other hand, by the complexity and intricacy of the taxonomy in such large genera as *Bioramix* and *Oodescelis*. The volume of some genera of the tribe and their subdivision into subgenera is not yet clear. Depending on views by different authors on the volume of the genus, the number of genera in the tribe varied from 1 (Seidlitz, 1893) to 8 (Kaszab, 1940) and 9 (Skopin, 1968). In the present paper, I accept 8 genera.

The subdivision of *Platyscelides* into 4 genera, suggested by Lacordaire (1859), may be treated as the first classification of the tribe; at present, only one of these genera, *Platyscelis*, is accepted as a genus of this tribe (see above). Seidlitz (1893) proposed a detailed classification of the tribe for the first time. The author subdivided Pedinini into 3 sections (Abtheilungen): *Platyscelina*, *Pedinina*, and *Dendarina*. According to Seidlitz, *Platyscelina* differed from two other groups in the following characters: presence of connective membrane between clypeus and labrum, staright anterior margin of clypeus; undivided eyes; shape of process on first visible abdominal sternite, structure of epipleura. Seidlitz included in the section *Platyscelina* a single genus (*Platyscelis*), subdivided into the subgenera *Pleiopleura*, *Leipopleura*, *Platyscelis*, *Platynoscelis*, and *Oodescelis*. The first 3 subgenera were separated from the others on the basis of the structure of the fore tibia, suited for digging and depressed ventrally. Characters used for the distinguishing of these subgenera (structure of epipleura and pubescence of tarsi) are also partly used in the contemporary classification. The subgenus *Oodescelis* was separated by the presence of a tooth on the fore femur and pubescence on the inner surface of the male hind femur. The author subdivided this subgenus into 2 groups differing in the shape of the male fore tibia and the degree of convexity of the elytra. Such a subdivision was largely artificial, because all these characters demonstrate a high degree of variability. As a result, some closely related species were included in different groups (e.g., *O. melas* and *O. oblonga*; *O. tibialis* and *O. affinis*). The subgenus *Platynoscelis* turned out to be a composite one, because taxonomically important characters of the genital structure, pubescence of the middle tibia, and the shape of the body were not taken into consideration. The Seidlitz's classification was undoubtedly progressive for that time. Many species-groups were distinguished absolutely correctly (*Leipopleura*, *Pleiopleura*, and *Oodescelis*). However, the use of a limited number of characters and not always correct estimation of their taxonomic importance resulted in an artificial uniting of some species into subgenera (especially in *Platynoscelis*). The genera *Myatis*, *Bioramix*, and *Chianalus*, described from Central Asia, and the genus *Botiras* from Kashmir were not discussed in the paper, because the author had no material on these genera in his possession.

The description of 2 new genera, *Trichoplatyscelis* Reinig, 1931 and *Trichomyatis* Schuster in Reinig, 1931, should be considered important supplements published after the paper by Seidlitz. The first of these genera was later treated as a subgenus of the genus *Bioramix*; the taxonomic status of *Trichomyatis* did not change.

Kaszab (1940) proposed the most reasoned classification of the tribe. The author clearly determined the volume of the tribe, excluding from it the genera united into the tribe Psectropini. Kaszab was one of the first entomologists who noted closer similarity between Platyscelidini and Blaptini than between Platyscelidini and Pedinini. Kaszab revealed a new character, the presence of inter-claw setae, typical of Platyscelidini and not of Blaptini. He also used the pubescence of the ultimate antennal segments for distinguishing these closely related tribes. However, the study of this character in representatives of both the groups demonstrated that it was rather variable and, therefore, unreliable for diagnostics. The tribe Blaptini can easily be separated from closely related groups in the original musculature of the mouthparts (Medvedev, 1960) and the structure of the mesothorax: episterna adjoining inner margin of epipleura along a significant distance (Medvedev, 1989). Kaszab included the following 8 genera in Platyscelidini: *Platyscelis*, *Platynoscelis*, *Oodescelis*, *Somocoelia*, *Myatis*, *Trichomyatis*, *Microplatyscelis*, and *Trichoplatynoscelis*. The two last genera were described as new for science. In my opinion, the separation of the genus *Trichoplatynoscelis* was not sufficiently reasoned, because very variable characters (fringe of pronotal base, pubescence and punctation of elytra, and the shape of posterior angles of pronotum) were used for distinguishing *Trichoplatynoscelis* from closely related *Trichomyatis*. I consider species of *Trichoplatynoscelis* belonging to the genus *Trichomyatis*.

The genera *Platyscelis* and *Oodescelis* in the paper by Kaszab completely correspondent to homonymous subgenera in the Seidlitz's classification; *Myatis*, *Trichomyatis*, and *Somocoelia* were accepted in the

volume proposed by the authors of these taxa. The genera *Bioramix*, *Platynoscelis*, *Faustia*, *Chianalus*, *Botiras*, *Leipopleura*, and *Trichoplatyscelis* were united in the large genus *Platynoscelis*. The author ranked most of them as subgenera. On the whole, the Kaszab's classification of the tribe was better than the preceding one and reflected the natural differentiation of groups in Platyscelidini more successfully. The use of the structure of the male genitalia for taxonomic purposes was very progressive. However, these characters were mainly used for diagnoses of species; their significance for the subgeneric classification was not appreciated.

The subgeneric subdivision in the monograph by Kaszab was elaborated for the genera *Oodescelis*, *Platyscelis*, and *Platynoscelis*. The genus *Platyscelis* was subdivided into 4 subgenera also accepted by me, although future investigations will probably result in the necessity of differentiation of the subgenus *Platyscelis*. Nine subgenera were distinguished in the genus *Oodescelis*; these subgenera were separated on the basis of the structure of the male fore and middle tibiae and the degree of convexity of the elytra and their pubescence. Most of the mentioned characters are very variable and, in my opinion, cannot be used for the rationalization of the natural classification. In this connection, I revised the subgeneric classification of *Oodescelis*. Structural characters of the male and female genitalia were taken as a basis for distinguishing the groups. Kaszab considered the genus *Platynoscelis* as consisting of 12 subgenera. Many of these subgenera, *Platynoscelis*, *Tricholeipopleura*, *Nudoplatyscelis*, *Cardiochianalus*, and *Chianalus*, form morphologically distinct groups. The subgenera *Cardiobioramix* and *Bioramix* are composite, because they were distinguished on the basis of very variable characters: shape of pronotum and structure of prothoracal process. Their classification should be revised. Composition of the subgenera *Trichoplatyscelis* and *Leipopleura* needed a revision, because Kaszab treated the first subgenus in the wrong way, in other understanding than Reinig (1931); I performed a revision of them earlier (Egorov, 1990a). Separation of the subgenus *Pleioplatyscelis* was, undoubtedly, erroneous (see below).

Later, the classification of the tribe did not change significantly. It is only necessary to note the description of an unusual monotypic genus, *Somocoeloplatys* Skopin, 1968, and some replacements made by Skopin (1965) in subgenera of the genus *Oodescelis*.

The classification suggested by me is based on the Kaszab's (1940) one, which was, however, considerably revised. The following genera are included in the tribe: *Platyscelis*, *Bioramix* (= *Platynoscelis* sensu Kaszab, 1940), *Oodescelis*, *Somocoelia*, *Somocoeloplatys*, *Microplatyscelis*, *Myatis*, and *Trichomyatis* (*Trichomyatis* + *Trichoplatynoscelis*). The main changes consider the subgeneric subdivision of *Oodescelis* and *Bioramix*. The first genus is subdivided into 11 subgenera, and the second, into 13 subgenera.

A Taxonomic List of Tenebrionid Beetles of the Tribe Platyscelidini of the World Fauna

Tribe **PLATYSCELIDINI** Lacordaire, 1859

Lacordaire, 1859 : 229 (Platyscelides; part.); Seidlitz, 1893 : 338 (Platyscelina); Reitter, 1904 : 31 (Platyscelinae); Gebien, 1938 : 66 (Platyscelini; part.); Kaszab, 1940 : 139 (Platyscelini); 1960 : 81 (Platyscelini); Skopin, 1965 : 51 (Platyscelini); 1975 : 29 (Platyscelites; as supertribe); Egorov, 1990a: 401.

Type genus *Platyscelis* Latreille, 1818.

Nomenclature notes. In order to eliminate a possible homonymy with the name Platyscelidae Bate, 1861 (Crustacea, Amphipoda), I suggested that the spelling of the name of the tribe should be changed from Platyscelini to Platyscelidini (Egorov, 1990a). The grammar gender of the names *Microplatyscelis*, *Platyscelis*, *Oodescelis*, *Somocoeloplatys*, and *Somocoelia* was determined as feminine on the basis of the word etymology. Etymology of the names *Bioramix*, *Myatis*, and *Trichomyatis*, formed on the basis of the latter, is unclear. In Latin, words ending with *-ix* usually belong to the feminine gender; therefore, I accept the feminine gender for the name *Bioramix*, although Schuster (1936) evidently treated it as belonging to the masculine gender ("*B. afghanicus*"). The presence of the Greek letter "y" in the names *Trichomyatis* and *Myatis* allows considering these names as Greek words with -is endings used in Latin. As far as similar names always belonged to the feminine gender, I treat *Trichomyatis* and *Myatis* in the same grammar gender. Bogatshev (1952) also considered *Myatis* of the feminine gender ("*M. tadzhika*"). All species names of Platyscelidini are corrected in accordance with the aforesaid.

Genus ***OODESCELIS*** Motschulsky, 1845

Motschulsky, 1845 : 76; Mannerheim, 1846 : 219; Gebler, 1859 : 481; Seidlitz, 1893 : 343,356 (*Platysce-*

lis subg.); Kaszab, 1938a: 49 (*Platyscelis* subg.); 1940 : 937; Skopin, 1965 : 57; Egorov, 1991c : 302.

Erroneous spelling. *Oodoscelis*: Baudi, 1876 : 36; Gebien, 1910 : 254; Kaszab, 1940 : 127; 1960 : 109.

Type species *Blaps polita* Sturm, 1807, by subsequent designation (Kaszab, 1940 : 937). Validated by the International Commission on the Zoological Nomenclature (Egorov, 1991c; OPINION 1729).

The range of the genus occupies the entire steppe and partly forest-steppe zones of Europe and Siberia (as far as Yenisei), Kazakh tumulous area, entire Tien Shan and Altai, Nien Shan, and a part of the northern (Shanxi, Hebei, Gansu, Shaanxi) and central (Sichuan) China.

Subgenus ***Acutoodescelis*** Kaszab, 1940.

Kaszab, 1940 : 951 (part.).

Type species *Platyscelis punctatissima* Fairmaire, 1886, by original designation.

Oodescelis (*Acutoodescelis*) *punctatissima* (Fairmaire, 1886).

Oodescelis (*Acutoodescelis*) *emerichi* Kaszab, 1940.

Oodescelis (*Acutoodescelis*) *pyripenis* Ren, 1999.

Subgenus ***Planoodescelis*** L. Egorov, **subg. n.**

Oodescelis kansouensis Kaszab, 1940, a single species in the subgenus, was known from the female. I have examined and described the male (Egorov, 1989c). The specificity of morphological characters allowed establishing a new subgenus.

Diagnosis. Upper side of head, pronotum and apices of elytra pubescent with short appressed hairs. Elytra slightly elongate apically, especially in females. Pronotum and elytra flattened. Outer margin of epipleura sharp, somewhat bent upwards in basal part; in dorsal view, visible along entire length. Male abdomen without thickets of hairs. Legs slender. Tibiae straight, weakly broadening from base to apex. Hind tibia pubescent with rather long semierect hairs on inner side. Male fore tarsus not narrower and middle tarsus narrower than fore and middle tibiae, respectively. Aedeagus large, parameres S-shaped, strongly curved in apical part, with strong teeth pointed backwards. Basal part without dorsal groove and lateral outgrowths at apex. Gonostyli of ovipositor not projecting outwards.

Type species *Oodescelis kansouensis* Kaszab, 1940.

A single representative of the subgenus is known from China (Amdos highland, Gansu).

Oodescelis (*Planoodescelis*) *kansouensis* Kaszab, 1940.

Subgenus ***Ovaloodescelis*** Kaszab, 1940

Kaszab, 1940 : 947 (part.); Skopin, 1965 : 58 (part.). —*Clavatoodescelis* Kaszab, 1940 : 974 (part.); Skopin, 1965 : 60 (part.).

Type species *Platyscelis affinis* Seidlitz, 1893, by original designation.

The range of the subgenus covers mainly northern, central, and eastern Tien Shan and the south of Kazakh tumulous area.

Oodescelis (*Ovaloodescelis*) *adriani* Kaszab, 1940.

Oodescelis (*Ovaloodescelis*) *ovalis* (Ballion, 1878) = *O. przewalskii* Bogatshev, 1946 (Skopin, 1973 : 871) = *O. chinensis* Kaszab, 1962, **syn. n.** The last synonymy is based on the identity of the original description and figures of *O. chinensis* to *O. ovalis*.

Oodescelis (*Ovaloodescelis*) *affinis* (Seidlitz, 1893).

Oodescelis (*Ovaloodescelis*) *tibialis* (Ballion, 1878) = *O. sachtlebeni* Kaszab, 1940 (Skopin, 1973 : 87) = *O. heptapotamicus* Skopin, 1966 (Egorov, 1999 : 124) = *O. curvipes* Skopin, 1966 (Egorov, 1999 : 124).

Oodescelis (*Ovaloodescelis*) *karaganae* Skopin, 1965.

Oodescelis (*Ovaloodescelis*) *subattenuata* L. Egorov, 1991 = *O. attenuata* Kaszab, 1940; non Motschulsky, 1860 (Egorov, 1991a: 146).

Oodescelis (*Ovaloodescelis*) *pseudotibialis* Skopin, 1973.

Oodescelis (*Ovaloodescelis*) *heydeni* (Seidlitz, 1893) = *O. xerophila* Skopin, 1965 (Egorov, 1999 : 125).

Oodescelis (*Ovaloodescelis*) *similis similis* (Kaszab, 1938) = *Platyscelis clavatipes* Kaszab, 1938 (Egorov, 1999 : 125) = *Oodescelis iliensis* Skopin, 1958 (Skopin, 1965 : 62).

Oodescelis (*Ovaloodescelis*) *similis blattiformis* (Kaszab, 1938). The subspecific status of the taxon was ascertained by Egorov (1993 : 57).

Subgenus ***Clavatoodescelis*** Kaszab, 1940

Kaszab, 1940 : 974 (part.); Skopin, 1965 : 60 (part.).

Type species *Platyscelis melas* Fischer-Waldheim, 1823, by original designation.

The distributional range of the subgenus is disrupted: One species populates the steppe and partly the forest-steppe zones of Europe (from Austria to the Urals), and 2 other species are endemics of the Dzhungar Ala Tau.

Oodescelis (*Clavatoodescelis*) *melas* (Fischer-Waldheim, 1823), the shrub tenebrionid beetle.

Oodescelis (*Clavatoodescelis*) *oblonga* (Ballion, 1878) = *Platyscelis regeli* Ballion, 1878 (Egorov, 1999 : 125) *Oodescelis kuntzeni* Kaszab, 1940, **syn. n.**; = *O. gebieni* Kaszab, 1940, **syn. n.**

Comment on the synonymy. I examined the lectotype of *P. regeli* (female). Judging by a very characteristic elongate apex of thr elytra and the shape and puncture of the pronotum, this specimen belongs to *O. oblonga*. The latter name was selected for this species, because its lectotype is the male. The synonymy of *P. regeli* and *O. clavatipes* by Skopin (1973) is erroneous, because these species are well distinguished by their appearance, shape, and punctuation of the pronotum. The snonymy of *P. oblonga* and *O. acutanguloides* by Skopin (1973) is doubtful. The types of these species strongly differ from each other in the structure of the parameres. I treat them as separate species. A comparison of the types of *P. oblonga* and *O. kuntzeni* demonstrated the identity of these species; therefore, the latter name is a junior synonym of the first one. I could not examine the types of *O. gebieni*, but differences mentioned for this species by Kaszab (1940) lie within the limits of the species variability, which makes it also possible to consider *O. gebieni* as a junior synonym of *P. oblonga*.

Oodescelis (*Clavatoodescelis*) *acutanguloides* Kaszab, 1940.

Subgenus ***Montanoodescelis*** L. Egorov, **subg. n.**

Type species *Platyscelis sahlbergi* Reitter, 1900.

Previously, 4 species of this subgenus were included in the subgenus *Truncatoodescelis* (Kaszab, 1940; Skopin, 1965; Egorov, 1987). The revealed genital characters of both the sexes allow considering them as members of a separate subgenus closely related to *Clavatoodescelis* and *Ovaloodescelis*. All species are dwellers of the forest and subalpine zones of the Zailiiskii Ala Tau and Ketmen Mountain Ridges.

Diagnosis. Dorsal surface glabrous, usually weakly shining. Outer margin of epipleura visible only in front veiw. Male abdomen with distinct thickets of hairs in the middle of 1st, 2nd, (sometimes 3rd), and ultimate visible sternites. Pronotal process with rounded apex. Male fore tibia club-shaped, hind tibia without dense erect pubescence, only occasionally their inner surface densely pubescent with semierect hairs. Segments of male tarsi moderately transverse, 1st segment of fore tarsus nearly as wide as 4th one. Parameres narrowing forward, with more or less developed lobes before apex; parameres widely flattened dorsally, so that median groove in this area smoothed. Basal part of aedeagus with slightly visible, shallow longitudinal groove in anterior third. Gonostyli of ovipositor shortened, only setae projecting outwards.

Oodescelis (*Montanoodescelis*) *sahlbergi* (Reiter, 1900).

Oodescelis (*Montanoodescelis*) *transiliensis* L. Egorov, 1987.

Oodescelis (*Montanoodescelis*) *femoralis* (Kaszab, 1938).

Oodescelis (*Montanoodescelis*) *ketmeniana* Skopin, 1961.

Subgenus ***Splenoodescelis*** L. Egorov, **subg. n.**

Type species *Platyscelis turkestanica* Seidlitz, 1893.

Diagnosis. Dorsal surface strongly shining. Elytra rather densely pubescent with short erect hairs, somewhat pubescent obliterate on disc. Apices of elytra commonly rounded. Pronotum and elytra flattened. Male abdomen with distinct thickets of hairs in the middle of 1st, 2nd, and ultimate visible sternites. Male fore tibia with weak inner incision in basal third, inner surface of hind tibia densely pubescent with short semierect hairs; frequently, this pubescence indistinct or absent. Segments of male fore and middle tarsi moderately transverse, 1st segment of fore tarsus as wide as 4th. Median groove of parameres of aedeagus developed along entire length. Basal part of aedeagus with a deep groove in apical part and slightly visible groove along rest of length on dorsal side. Gonostyli of ovipositor small, submerged, only setae projecting outwards.

Previously, on the basis of the pubescent elytra, a single species of this subgenus was related to *O. acutangulata* and included in the subgenus *Trichoodescelis*, and one of its forms (*O. turul*) was included by Kaszab (1940) in the subgenus *Spinoodescelis* on the basis of the character of the pubescence on the hind tibia. However, examination of the ovipositor demonstrated that this species is more closely related to species from the eastern part of Tien Shan. I treat *O. turkestanica* as an autochthonic form that changed in the area of the Lake Issyk Kul. At present, this form deserves singling out as a separate subgenus.

Oodescelis (*Spinoodescelis*) *turkestanica* (Seidlitz, 1893) = *O. hirsuta* Reitter, 1896 (Kaszab, 1940 : 955) = *O. turul* Kaszab, 1940 (Egorov, 1999 : 125).

Subgenus ***Convexoodescelis*** L. Egorov, **subg. n.**

Type species *Platyscelis brevipennis* Kaszab, 1938.

Diagnosis. Dorsal surface glabrous, weakly shining. Elytra convex in transverse direction. Outer margin of epipleura visible along entire length. Male abdomen with distinct thickets of hairs in the middle of 1st, 2nd, and ultimate visible sternites. Male fore tibia evenly broadening from base to apex, hind tibia without dense pubescence. Segments of male fore and middle tarsi strongly wider than long, 1st segment of fore tarsus visibly narrower than 4th. Aedeagus small, less than 3 mm long. Parameres not flattened and not depressed. Groove in basal part of aedeagus indistinct or slightly visible in central part. Basal part of aedeagus without lateral prominences and deep longitudinal groove. Gonostyli of ovipositor shortened, only setae projecting outwards.

The subgenus is separated on the basis of the original structure of the aedeagus and the male fore tibia. The subgenus is closely related to the subgenus *Oodescelis*, differing in the other character of the pubescence of the male abdomen and another structure of the aedeagus. The distributional range of the subgenus occupies nearly the entire Tien Shan (without its internal regions).

Oodescelis (*Convexoodescelis*) *brevipennis brevipennis* (Kaszab, 1938).

Oodescelis (*Convexoodescelis*) *brevipennis wernoyensis* Kaszab, 1940, **stat. n.**

Subgenus ***Oodescelis*** Motschulsky, 1845

Kaszab, 1940 : 945; Skopin, 1965 : 57.

Type species *Blaps polita* Sturm, 1807, by subsequent designation (Kaszab, 1940 : 937), validated by the International Commission on Zoological Nomenclature (Egorov, 1991c; OPINION 1729).

One species of the subgenus is found only in the northern Dzhungar Ala Tau Ridge, and another species is widespread in the steppe and partly the mountain-steppe zones from Austria to Yenisei.

Oodescelis (*Oodescelis*) *polita* (Sturm, 1807) = *Platyscelis gages* Fischer-Waldheim, 1832 (Kaszab, 1938d: 26) = *Oodescelis minimus* Motschulsky, 1860, **syn. n.**; = *Platyscelis globosa* Seidlitz, 1893 (Kaszab, 1940 : 945) = *Oodescelis arnoldii* Skopin, 1964, **syn. n.**

Comment on the synonymy. Examination of mass material (more than 1000 specimens) demonstrated that distinguishing characters of *O. arnoldii* are within the limits of the species variability, making this species a junior synonym of *O. polita*. *O. minimus* was recorded from Omsk. It is impossible to determine the species from the original description but, most probably; it also belongs to *O. polita*, a single representative of the genus in the south of western Siberia.

Oodescelis (*Oodescelis*) *depilata* Skopin, 1966.

Subgenus ***Spinoodescelis*** Kaszab, 1940

Kaszab, 1940 : 966 (part.); Skopin, 1965 : 62 (part.).

Type species *Platyscelis somocoeloides* Seidlitz, 1983, by original description.

Representatives of the subgenus are endemic species to western Tien Shan.

Oodescelis (*Spinoodescelis*) *necopinata* Skopin, 1965.

Oodescelis (*Spinoodescelis*) *punctolineata* Kaszab, 1940.

Oodescelis (*Spinoodescelis*) *transcaspica* Kaszab, 1940.

Oodescelis (*Spinoodescelis*) *hirtipennis* Kaszab, 1940.

Oodescelis (*Spinoodescelis*) *ovulum* (Seidlitz, 1983) = *O. latipleura* Kaszab, 1940, **syn. n.**

Comment on the synonymy. Examination of the types and voluminous material (about 400 specimens) demonstrated the variability of characters indicated by

Kaszab (1940) as distinguishing *O. ovulum* and *O. latipleura*. This fact allows considering them as belonging to the same species, which is additionally confirmed by similar geographical ranges of the taxa described.

Oodescelis (*Spinoodescelis*) *longisterna* Kaszab, 1940.

Oodescelis (*Spinoodescelis*) *somocoeloides somocoeloides* (Seidlitz, 1983) = *Platyscelis blapoides* Reitter, 1896 (Kaszab, 1940 : 967).

Oodescelis (*Spinoodescelis*) *somocoeloides grandis* Skopin, 1965, **stat. n.** = *O. grandis alticola* Skopin, 1965, **syn. n.**

Taxonomic note. The status of *O. grandis* Skopin, 1965 was ranked as a subspecies one, because a gradual series of transitional forms dwells along the border of their ranges. The subspecies *O. grandis alticola*, described by Skopin (1965), stays within the limits of the morphological variability of the species and is treated by me as its form.

Oodescelis (*Spinoodescelis*) *acuta* Kaszab, 1940 = *O. semenoviana* Bogatshev, 1946, **syn. n.**; = *O. dispar* Skopin, 1965, **syn. n.**

Comment on the synonymy. The presence of a brush of dense hairs on the inner surface of the male hind tibia in *O. acuta* and absence of such a brush in *O. dispar* is the only distinguishing character mentioned by Skopin (1965). Examination of a mass material demonstrated the variability of this character. Individuals from the Chatkal Mountain Range usually possess well-developed hairs; whereas these hairs are usually absent in individuals from the Ugam and Pskem Mountain Ranges. However, this is the intraspecific variability, which is also characteristic of *O. somocoeloides*. The inner surface of the hind tibia is hairless in the holotype of *O. acuta* examined, although in the original description, Kaszab (1940) idicated another state of this character. In other characters, these taxa very well correspond to each other. Examination of the types of *O. semenoviana* allows treating this taxon only a variation of *O. acuta*, dwelling in the southern part of the range and differing in the wider distal part of the parameres. This form can also be treated as a transitional one to *O. somocoeloides*. The taxonomic status of *O. semenoviana* needs examination of an additional material. However, it is evident that its taxonomic rank will be subspecific or infrasubspecific.

Subgenus ***Longuloodescelis*** Kaszab, 1940

Kaszab, 1940 : 957.—*Trichoodescelis* Kaszab, 1940 : 954 (part.).—*Oblongoodescelis* Kaszab, 1940 : 958 (part.).

Type species *Platyscelis hirta* Seidlitz, 1893, by original description.

Representatives of the subgenus are endemic species to the western Tien Shan.

Oodescelis (*Longuloodescelis*) *pilosa* L. Egorov, 1987.

Oodescelis (*Longuloodescelis*) *hirta* (Seidlitz, 1893).

Oodescelis (*Longuloodescelis*) *songariensis* Kaszab, 1940 = *O. ballioni* Skopin, 1973 (Egorov, 1993 : 57) = *O. arnoldii* A. Bogatshev (Arnoldi, 1949) (nom. nud.) (Egorov, 1999 : 126).

Oodescelis (*Longuloodescelis*) *medvedevi* L. Egorov, 1989.

Oodescelis (*Longuloodescelis*) *acutangula* (Kraatz, 1884).

Nomenclature note. The names *Oodescelis acutangulata rupestris* and *Oodescelis acutangula silvatica*, mentioned in the paper by Arnoldi (1949), are invalid (see Egorov, 1999 : 126).

Subgenus ***Truncatoodescelis*** Kaszab, 1940

Kaszab, 1940 : 957.—*Oblongoodescelis* Kaszab, 1940 : 958 (part.).

Type species *Platyscelis longicollis* Kraatz, 1884, by original description.

Representatives of the subgenus are endemic species to the western Tien Shan.

Oodescelis (*Truncatoodescelis*) *longicollis* (Kraatz, 1884) = *Platyscelis kiritchenkoi* Bogatshev, 1939 (Ghilarov, 1947 : 99; Egorov, 1999 : 126).

Oodescelis (*Truncatoodescelis*) *kirghizica kirghizica* L. Egorov, 1989.

Oodescelis (*Truncatoodescelis*) *kirghizica ferghanensis* L. Egorov, 1989.

Oodescelis (*Truncatoodescelis*) *schusteri schusteri* Kaszab, 1940.

Oodescelis (*Truncatoodescelis*) *schusteri truncatoides* Skopin, 1968 (status: Egorov, 1999 : 126).

Species with Unclear Subgeneric Position

Oodescelis provostii (Fairmaire, 1888). The types of this species were not found. From the original description, it is impossible to understand, whether this species belongs to Blaptini or to Platyscelidini. If the second variant is accepted, then the species is a member of the genus *Oodescelis* by the presence of the tooth on the inner surface of the fore femur.

Oodescelis attenuata Motschulsky, 1860. The types were not found. A brief diagnosis of the taxon makes it impossible to distinguish its generic position. The type locality ("steppes des Kirghises orientalis") approximately corresponds to the eastern part of Kazakh tumulous region (to Lake Zaisan). From this region, 2 species of the genus *Oodescelis*, *O. polita* and *O. tibialis*, and *Platyscelis angusticollis* were reported. Probably, one of these species was described by Motschulsky (1860) as *O. attenuata*.

Genus ***BIORAMIX*** Bates, 1879

Bates, 1879 : 478; 1890 : 69; Blair, 1923 : 283 (=*Botiras*, *Faustia*); Kaszab, 1940 : 175 (*Platynoscelis* subg.); Bogatshev, 1965 : 25; Kaszab, 1975 : 19 (*Platynoscelis* subg.); Egorov, 1989a: 389.—*Chianalus* Bates, 1879 : 479 (type species *Chianalus costipennis* Bates, 1879, by monotypy); 1890 : 72; Gebien, 1938 : 70; Kaszab, 1940 : 198 (*Platynoscelis* subg.).—*Platynoscelis* Kraatz, 1882a: 91 (type species *Platynoscelis helopioides* Kraatz, 1882, by original designation); Seidlitz, 1893 : 343 (*Platyscelis* subg.; = *Faustia*); Gebien, 1938 : 67 (*Platyscelis* subg.; = *Bioramix*, *Botiras*); Kaszab, 1940 : 145 (= *Chianalus*, *Leipopleura*, *Trichoplatyscelis*); 1960 : 82; Skopin, 1965 : 53; Kaszab, 1970 : 124.—*Faustia* Kraatz, 1882a: 92 (type species *Faustia modesta* Kraatz, 1882, by monotypy).—*Botiras* Fairmaire, 1891 : 98 (type species *Botiras striatellus* Fairmaire, 1891, **designated here**); Blair, 1923 : 283.—*Leipopleura* Seidlitz, 1893 : 343, 354 [*Platyscelis* subgen.; type species *Faustia integra* Reitter, 1887, by subsequent designation (Kaszab, 1940)]; Kaszab, 1940 : 167 (*Platynoscelis* subg.).—*Euryhelops* Reitter, 1901b: 209 (*Helopina*; type species *Helops championi* Reitter, by monotypy).—*Trichoplatyscelis* Reinig, 1931 : 895 [type species *T. pamirensis* Reinig, 1931 = *Bioramix lapidicola* (Kaszab, 1940), by original designation]; Kaszab, 1940 : 159 (*Platynoscelis* subg.).

Erroneous spelling**.** *Bioramyx*: Gridelli, 1934 : 62.

Type species *Bioramix ovalis* Bates, 1879, by subsequent designation (Kaszab, 1940 : 175).

Earlier I demonstrated that the name *Platynoscelis* Kraatz, 1882 has been selected for the genus by the previous reviser (Kaszab, 1940) not on the basis of priority (Egorov, 1989a). Kryzhanovskij pointed at *Bioramix* Bates, 1879 as the oldest valid name (referring to Bogatshev's personal communication). Changes in the nomenclature, accepted in the present paper (mainly new combination) are based just on these arguments

The distributional range of the species occupies mountain regions of Middle (excluding eastern Tien Shan) and Central Asia, Himalayas, several provinces of China (Sichuan, Shaanxi), northern and central Mongolia, and southern Siberia (from Altai to Transbaikalia).

Subgenus ***Cardiobioramix*** Kaszab, 1940.

Kaszab, 1940 : 183 (*Platynoscelis* subg.).

Type species *Bioramix asidioides* Bates, 1879, by original designation.

Representatives of the subgenus are spread in Hindu Kush Ridge (and adjoining Badakhshan) (4 species), in the Himalayas (11 species), and Sino-Tibet Mts. (China, Sichuan) (5 species).

The group is heterogeneous and can be subdivided into 3 sections, representatives of which dwell in different regions and differ morphologically.

Section 1

Bioramix (*Cardiobioramix*) *tshartymensis* L. Egorov, 1990.

Bioramix (*Cardiobioramix*) *haafi* (Kaszab, 1960), **comb. n.**

Bioramix (*Cardiobioramix*) *bechynei* (Kaszab, 1960), **comb. n.**

Bioramix (*Cardiobioramix*) *kulzeri* (Kaszab, 1960), **comb. n.**

Section 2

Bioramix (*Cardiobioramix*) *wittmeri* L. Egorov, 1990.

Bioramix (*Cardiobioramix*) *dubiosa* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *blairi* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *fairmairei* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *zabriformis* Fairmaire, 1896).

Bioramix (*Cardiobioramix*) *gridelli* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *schusteri* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *ovata* (Kaszab, 1940).

Bioramix (*Cardiobioramix*) *sikkimensis* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *asidioides* Bates, 1879 = *Botiras punctatellus* Fairmaire, 1891 (Kaszab, 1940 : 193).

Bioramix (*Cardiobioramix*) *punjabensis* L. Egorov, 1990 = *Platynoscelis championi* Kaszab, 1940; non Reitter, 1891.

Nomenclature note. After reestablishing of the name *Bioramix championi* (Reitter, 1891) and placement of *Platynoscelis championi* Kaszab, 1940 in the genus *Bioramix*, the latter name becomes a junior secondary homonym of the first one. In order to eliminate the homonymy, I suggested a new name for the species, based on the type locality: "Kashmir, Punjab, Kulu Div."

Section 3

Bioramix (*Cardiobioramix*) *szetschuana* (Kaszab, 1940).

Bioramix (*Cardiobioramix*) *subaenescens* (Schuster, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *korschefskyi* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *chinensis* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiobioramix*) *championi* (Reitter, 1891), **comb. n.** = *Helops subaeneus* Reitter, 1889; non Baudi, 1876) (Reitter, 1891 : 226).

Nomenclature note. In order to eliminate the primary homonymy, Reitter properly proposed a new name, *Helops championi* (Reitter, 1891) for the species. Kaszab did not accept this nomenclatural act, leaving the species with the name *Platynoscelis subaeneus*. I accepted the action of the first author as corresponding to the requirements of the International Code of Zoological Nomenclature (1999).

Subgenus ***Bioramix*** Bates, 1879

Bates, 1879 : 478 (part.); 1890 : 69 (part.); Blair, 1923 : 283 *Platyscelis* subg.); Kaszab, 1940 : 175 (*Platynoscelis* subg.); Kaszab, 1975 : 19 (*Platynoscelis* subg.).

Type species *Bioramix ovalis* Bates, 1879, by subsequent designation (Kaszab, 1940 : 175).

On the basis of morphological characters and geographical distribution, the subgenus can be subdivided into 2 sections.

Section 1 [Species from Hundu Kush (Afghanistan)]

Bioramix (*Bioramix*) *freudei* (Kaszab, 1970), **comb. n.**

Bioramix (*Bioramix*) *klapperichi* (Kaszab, 1960), **comb. n.**

Bioramix (*Bioramix*) *paghmanica* (Kaszab, 1960), **comb. n.**

Bioramix (*Bioramix*) *stoeckleini* (Kaszab, 1960), **comb. n.**

Section 2 (Species from Western Himalayas)

Bioramix (*Bioramix*) *rotundicollis* (Kaszab, 1940), **comb. n.**

Bioramix (*Bioramix*) *kashmirensis* (Kaszab, 1940), **comb. n.**

Bioramix (*Bioramix*) *glacialis* (Kaszab, 1975), **comb. n.**

Bioramix (*Bioramix*) *laeviuscula* (Fairmaire, 1891), **comb. n.**; = *Platynoscelis himalajensis* Kaszab, 1940 (Koch, 1965 : 133).

Bioramix (*Bioramix*) *puncticeps* Bates, 1879 = *Platynoscelis princes* Bogatshev, 1952 (Egorov, 1990a : 410).

Bioramix (*Bioramix*) *ovalis* Bates, 1879.

Bioramix (*Bioramix*) *espanoli* (Kaszab, 1961), **comb. n.**

Subgenus ***Leipopleura*** Seidlitz, 1893.

Seidlitz, 1893 : 343, 354 (*Platyscelis* subg.); Kaszab, 1940 : 167 (*Platynoscelis* subg.); Egorov, 1990a: 405 (*Bioramix* subg.).—*Faustia* (non Kraatz, 1882a): Reitter, 1887 : 381 (part.); 1889 : 699 (part.); *Trichoplatyscelis* (non Reinig, 1931): Kaszab, 1940 : 159 (*Platynoscelis* subg.; part.).

Type species *Faustia integra* Reitter, 1887, by subsequent designation (Kaszab, 1940).

The subgenus includes 12 species spread in mountain and partly steppe regions of southern Siberia (from Altai to Transbaikalia), and also in China and Mongolia. The revision was performed by me earlier (Egorov, 1990a).

Bioramix (*Leipopleura*) *darbukensis* (Kaszab, 1940).

Bioramix (*Leipopleura*) *rufipalpis* (Reitter, 1887).

Bioramix (*Leipopleura*) *aenescens* (Blair, 1923).

Bioramix (*Leipopleura*) *reinigi* (Kaszab, 1940) = *Platynoscelis tibetana* Kaszab, 1940 (Egorov, 1990a: 406).

Bioramix (*Leipopleura*) *cryptocoides* (Reitter, 1887).

Bioramix (*Leipopleura*) *frivaldszkyi* (Kaszab, 1940).

Bioramix (*Leipopleura*) *rubripes* (Reitter, 1889).

Bioramix (*Leipopleura*) *kochi* (Kaszab, 1940).

Bioramix (*Leipopleura*) *picipes* (Gebler, 1940) = *Platyscelis angustatus* Faldermann, 1835 (Egorov, 1989a: 390) = *P. reitteri* Seidlitz, 1893 (Egorov, 1989a: 390).

Bioramix (*Leipopleura*) *politicollis* (Kaszab, 1940).

Bioramix (*Leipopleura*) *integra* (Reitter, 1887).

Bioramix (*Leipopleura*) *micans* (Reitter, 1889) = *Faustia siningensis* Frivaldsky, 1889 (Egorov, 1990a: 408).

Subgenus ***Cardiochianalus*** Kaszab, 1940.

Kaszab, 1940 : 202 (*Platynoscelis* subg.).

Type species *Botiras sculptipennis* Fairmaire, 1891, by original description.

Representatives of the subgenus are known only from the western Himalayas.

Bioramix (*Cardiochianalus*) *cordicollis* (Kaszab, 1940).

Bioramix (*Cardiochianalus*) *batesi* (Kaszab, 1940), **comb. n.**

Bioramix (*Cardiochianalus*) *sculptipennis* (Fairmaire, 1891) = *Tagonoides somerssmithi* Fairmaire, 1896 (Koch, 1965 : 134).

Bioramix (*Cardiochianalus*) *schawalleri* L. Egorov, **nom. n.** pro *Platynoscelis kaszabi* Koch, 1965; non Gridelli, 1954.

Nomenclature note. After examination of the types of *Botiras sculptipennis* Fairmaire, 1891, Koch (1965) established that this species differs from *Platynoscelis sculptipennis* (sensu Kaszab, 1940). Therefore, in order to eliminate the homonymy, he gave a new name to this species, *Platynoscelis kaszabi*. However, the author did not notice that at that time this name had already existed, *Platynoscelis kaszabi* Gridelli, 1954. Thus, the Koch's name was preoccupied and could not be used for the designation of the species. The species is named for W. Schawaller, a known investigator of the Himalayan tenebrionid beetles.

Subgenus ***Chianalus*** Bates, 1879

Bates, 1879 : 479 (pro gen.); 1890 : 72 (pro gen.); Gridelli, 1934 : 63 (pro gen.); Kaszab, 1940 : 198 (*Platynoscelis* subg.).

Type species *Chianalus costipennis* Bates, 1879, by monotypy.

Representatives of the subgenus are known only from the western Himalayas.

Bioramix (*Chianalus*) *costipennis* (Bates, 1879), **comb. n.**

Bioramix (*Chianalus*) *striatella* (Fairmaire, 1891), **comb. n.**; = *Chianalus subcostipennis* Gridelli, 1934 (Kaszab, 1940 : 200).

Bioramix (*Chianalus*) *falsa* (Kaszab, 1961), **comb. n.**

Subgenus ***Trichochianalus*** Kaszab, 1940

Kaszab, 1940 : 201 (*Platynoscelis* subg.).

Type species *Platynoscelis monticola* Kaszab, 1940, by original designation.

The representative of the genus is known from the western Himalayas.

Bioramix (*Trichochianalus*) *monticola* (Kaszab, 1940), **comb. n.**

Subgenus ***Trichoplatyscelis*** Reinig, 1931

Reinig, 1931 : 895 (pro gen.); Kaszab, 1940 : 159 (*Platyscelis* subg; part.); Egorov, 1990a: 402 (*Bioraix* subg.; = *Pseudotrichoplatyscelis*).—*Pseudotrichoplatyscelis* Kaszab, 1960 : 82 (*Platynoscelis* subg.).

Type species *Trichoplatyscelis pamirensis* Reinig, 1931 = *Bioramix lapidicola* (Kaszab, 1940), by original designation.

The subgenus includes 2 species spread in the western Pamirs and mountain regions of Afghanistan. The revision was performed by me earlier (Egorov, 1990a).

Bioramix (*Trichoplatyscelis*) *lapidicola* (Kaszab, 1940) = *Trichoplatyscelis pamirensis* Reinig, 1931 (Kaszab, 1940 : 166) = *Platynoscelis tadzhika* Bogatshev, 1947 (Egorov, 1990a: 403) = *P. badakschanica* Kaszab, 1960 (Egorov, 1990a: 403).

Bioramix (*Trichoplatyscelis*) *paludani* (Gridelli, 1954).

Subgenus ***Nudoplatyscelis*** Kaszab, 1940

Kaszab, 1940 : 222; 1960 : 112; 1974 : 200 (*Platynoscelis* subg.).

Type species *Platynoscelis turanica* Reitter, 1896, by original description.

The subgenus includes 2 species. One of them dwells in Kopet Dagh Ridge and, probably, in Elburs Ridge; another one, in mountains of Afghanistan.

Bioramix (*Nudoplatyscelis*) *turanica* (Reitter, 1896).

Bioramix (*Nudoplatyscelis*) *kaszabi* (Gridelli, 1954), **comb. n.**; = *Platynoscelis ghorana* Kaszab, 1974 : 200, **syn. n.**

Comment on the synonymy. Examination of an additional material from Afghanistan demonstrated the variability of characters mentioned as distinguishing *B. ghorana* from *B. kaszabi*.

Subgenus ***Platynoscelis*** Kraatz, 1882

Kraatz, 1882a: 91 (part.); Seidlitz, 1893 : 343 (*Platyscelis* subg.; part.); Kaszab, 1940 : 230 (*Platynoscelis* subg.); 1960 : 121; 1973 : 50.

Type species *Platynoscelis helopioides* Kraatz, 1882, by original description.

The distributional range of the subgenus occupies nearly all mountain regions of Afghanistan and adjacent territories (Hundu Kush, Badakhshan, and Nuristan) as far as Turkestan and Alai Mountain Ridges to the north.

Bioramix (Platynoscelis) helopioides (Kraatz, 1882).

Bioramix (*Platynoscelis*) *gigantea* (Kaszab, 1974), **comb. n.**

Bioramix (*Platynoscelis*) *kabakovi* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *haarlovi* (Kaszab, 1958), **comb. n.**

Bioramix (*Platynoscelis*) *afghanistana* (Gridelli, 1954), **comb. n.**

Bioramix (*Platynoscelis*) *lindbergi* (Kaszab, 1973), **comb. n.** = *Trychomyatis afghanistana* (part.); non Gridelli, 1954 (Kaszab, 1970 : 132).

Bioramix (*Platynoscelis*) *tuxeni* (Gridelli, 1954), **comb. n.**

Bioramix (*Platynoscelis*) *graciliodes* (Kaszab, 1970), **comb. n.**

Bioramix (*Platynoscelis*) *kapisensis* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *delerei* (Kaszab, 1960), **comb. n.**

Bioramix (*Platynoscelis*) *gracilipenis* (Kaszab, 1960), **comb. n.**

Bioramix (*Platynoscelis*) *cylindricollis* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *oruzganensis* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *rufipes* (Kaszab, 1940).

Bioramix (*Platynoscelis*) *gracilis* (Seidlitz, 1893).

Bioramix (*Platynoscelis*) *granulipennis* (Kaszab, 1960), **comb. n.**

Bioramix (*Platynoscelis*) *gazni* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *scheerpeltzi* (Kaszab, 1960), **comb. n.**

Bioramix (*Platynoscelis*) *sistensis* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *setosa* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *bogatschevi* (Kaszab, 1970), **comb. n.**; = *Platynoscelis rotundicollis* Kaszab, 1960; non Kaszab, 1940.

Bioramix (*Platynoscelis*) *lucida* (Gridelli, 1954), **comb. n.**

Bioramix (*Platynoscelis*) *merkli* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *afghanica* Schuster, 1936.

Bioramix (*Platynoscelis*) *waziristanica* (Kaszab, 1940), **comb. n.** = *Platynoscelis paktiana* Kaszab, 1974, **syn. n.**

Comment on the synonymy. The absence of males in collections and also a strong variability of many characters (punctation of pronotum and elytra, shape of prothoracal process and sides of pronotum) was, probably, the reason of double description of the species. Examination of the types of *B. waziristanica*, *B. paktiana* and an additional material from Afghanistan demonstrated that *B. paktiana* is only a form of *B. waziristanica*.

Bioramix (*Platynoscelis*) *parvula* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *montana* (Kaszab, 1960), **comb. n.**; = *Platynoscelis subalpestris* Kaszab, 1973, **syn. n.**

Comment on the synonymy. Examination of the types and also of an additional material from Afghanistan demonstrated that the distinguishing characters of *B. subalpestris*, indicated by Kaszab (1973), lie within the limits of the intraspecific variability of *B. montana*, and that the structure of the aedeagus is similar in both the forms.

Bioramix (*Platynoscelis*) *gurjevae* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *shugnanensis* L. Egorov, 1990.

Bioramix (*Platynoscelis*) *cylindrica* (Kaszab, 1960), **comb. n.**

Bioramix (*Platynoscelis*) *rectangularis* (Kaszab, 1960), **comb. n.**

Bioramix (*Platynoscelis*) *hirtipennis* (Kaszab, 1960), **comb. n.**

Bioramix (*Platynoscelis*) *ovipennis* (Kaszab, 1960), **comb. n.**

Subgenus ***Tricholeipopleura*** Kaszab, 1940

Kaszab, 1940 : 223 (*Platynoscelis* subg.).

Type species *Platynoscelis lucidicollis* Kraatz, 1882, by original description.

Species of this subgenus dwell in Hissar-Darvaz and Alai Mountain Ridges.

Bioramix (*Tricholeipopleura*) *lucidicollis* (Kraatz, 1882).

Bioramix (*Tricholeipopleura*) *constricta* (Seidlitz, 1893).

Bioramix (*Tricholeipopleura*) *psalidium* (Seidlitz, 1893).

Bioramix (*Tricholeipopleura*) *horni* (Kaszab, 1940), **comb. n.**

Bioramix (*Tricholeipopleura*) *szekessyi* (Kaszab, 1938), **comb. n.**

Bioramix (*Tricholeipopleura*) *sinuatocollis* (Reitter, 1901), **comb. n.**

Subgenus ***Planoplatyscelis*** Kaszab, 1940

Kaszab, 1940 : 206 (*Platynoscelis* subg.).—*Pleiolatyscelis* Kaszab, 1940 : 220 (*Platynoscelis* subg.), **syn. n.**

Type species *Platyscelis margelanica* Kraatz, 1882 = *Bioramix pamirensis* Bates, 1879, by subsequent designation Validated by the International Commission on the Zoological Nomenclature (Egorov, 1991b; OPINION 1728, 1993).

Taxonomic and nomenclatural notes. *Platyscelis regeli* Ballion, 1878 was originally designated as the type species by Kaszab (1940). However, Skopin (1973), after examination of the types of this species, demonstrated that *Platyscelis regeli* was a representative of the genus *Oodescelis*. A senior synonym, *Platyscelis margelanica* Kraatz, 1882, was proposed for *Platyscelis regeli* sensu Kaszab, 1940; non Ballion, 1878. In this connection, I prepared an appeal to the International Commission on Zoological Nomenclature for permission to designate *Platyscelis margelanica* Kraatz, 1882 as the type species of the subgenus *Planoplatyscelis* (Egorov, 1991b). In 1993, the Commission (OPINION 1728) supported this suggestion. Later I examined the holotype of *Bioramix pamirensis* Bates, 1879, which was previously included by Kaszab (1940)in the subgenus *Bioramix*. It was found, that this species is similar to *P. margelanica* and, hence, the name *Platyscelis margelanica* Kraatz, 1882 is a junior synonym of *Bioramix pamirensis* Bates, 1879 (Egorov, 1993). According to the International Code of Zoological Nomenclature (1999), *Platyscelis margelanica* Kraatz, 1882 is also treated as the type species of the subgenus even in this situation.

The subgenus *Pleioplatyscelis* was separated by Kaszab (1940) on the basis of a virtually single distinguishing character: presence of a strong tooth on prothoracal process. Examination of a voluminous material demonstrated that this character is very variable not only within the limits of the subgenus, but occa-

sionally within the species (e.g., in *B. lederi* and *B. pamirensis*). Hence, this character cannot be used for the diagnosis of the subgenus. Therefore, I included species of *Pleioplatyscelis* in the subgenus *Planoplatyscelis*.

The distributionalrange of the subgenus is limited to Hissar-Darvaz and Alai mountain countries, as far as Badakhshan to the south.

Bioramix (*Planoplatyscelis*) *conradti* (Seidlitz, 1893) = *Platynoscelis pseudohelops* Bogatshev, 1947, **syn. n.**

Comment on the synonymy. Examination of the holotype of *Platynoscelis pseudohelops* has demonstrated that, first of all, this species was erroneously attributed by the author as belonging to the subgenus *Platynoscelis* (inner surface of middle tibia not pubescent with dense appressed hairs). Secondly, morphological characters of the specimen examined perfectly correspond to those of *B. conradti*.

Bioramix (*Planoplatyscelis*) *faldermanni* (Seidlitz, 1893) = *Platynoscelis auliensis* Kaszab, 1940, **syn. n.**; = *P. duplicata* Kaszab, 1940, **syn. n.**; = *P. blaptiformis* Bogatshev, 1946, **syn. n.**

Comment on the synonymy. More than 130 specimens of the species have been examined, including the types of all nominal species excluding *Platynoscelis auliensis*. It was found that this species is very variable in relation to many characters, it represents by a series of forms in various mountain ridges. Transitional forms occur between all the extreme forms, making it possible to distinguish them as belonging to the same species. The types of *P. duplicata* and *P. blaptiformis* examined belong to forms from Khazratishokh and Darvaz Mountain Ridges, correspondingly. According to the detailed description of *P. auliensis*, this species is also *B. faldermanni*.

Bioramix (*Planoplatyscelis*) *aruktavica* L. Egorov, 1990.

Bioramix (*Planoplatyscelis*) *haberhaueri* (Seidlitz, 1893) = *Platynoscelis humeralis* Reitter, 1896 (Egorov, 1999 : 128).

Bioramix (*Planoplatyscelis*) *andreevae* L. Egorov, 1990.

Bioramix (*Planoplatyscelis*) *lederi* (Seidlitz, 1893).

Bioramix (*Planoplatyscelis*) *latipennis* (Kaszab, 1940).

Bioramix (*Planoplatyscelis*) *pamirensis* Bates, 1879 = *Platyscelis margelanica* Kraatz, 1882 (Egorov, 1993 : 58); = *P. rotundangula* Kraatz, 1883 (Kaszab, 1940 : 215) = *P. difficilis* Kraatz, 1883 (Seidlitz, 1893 : 348) = *P. simplex* Kraatz, 1883 (Seidlitz, 1893 : 348); = *P. latipes* Kraatz, 1883 (Seidlitz, 1893 : 348) = *P. caroli* Kaszab, 1940 (Egorov, 1999 : 128).

Bioramix (*Planoplatyscelis*) *caraboides* (Kaszab, 1960), **comb. n.**

Subgenus ***Faustia*** Kraatz, 1882

Kraatz, 1882a: 92 (pro gen.) (non Reitter, 1889).

Type species *Faustia modesta* Kraatz, 1882, by monotypy.

The distributionalrange of the subspecies nearly coincides with the range of *Planoplatyscelis*.

Bioramix (*Faustia*) *modesta* (Kraatz, 1882).

Bioramix (*Faustia*) *lopatini* L. Egorov, 1990.

Subgenus ***Ovalobioramix*** L. Egorov, **subg. n.**

Type species *Platynoscelis molesta* Bogatshev, 1947, designated here.

Diagnosis. Dorsal side black, glabrous, without metallic sheen. Anterior margin of clypeus without emargination. Pronotum not cordate. Outer margin of epipleura not shortened. Humeri distinct. Male abdomen with distinct thickets of hairs in the middle of 1st, 2nd, and ultimate visible sternites. Fore femur with distinct tubercle on inner side. Fore tibia not depressed on inner side, their outer apical angle not elongate and not tooth-shaped. Middle tibia without dense pubescence of appressed hairs. In male, fore and middle tarsi weakly dilated, dense basal pubescence present not more than on 3 basal tarsal segments of both pairs of legs.

The presence of a tubercle on the fore femur strongly distinguishes this subgenus from other subgenera of *Bioramix*. A similar structure is also typical of *Oodescelis*. Probably, future studies may raise a rank of the taxa.

The subgenus is known only from Hissar-Darvaz Mountain Country.

Bioramix (*Ovalobioramix*) *molesta* (Bogatshev, 1947), **comb. n.**

Bioramix (*Ovalobioramix*) *hissarica* L. Egorov, 1992.

? *Bioramix* (*Ovalobioramix*) *gebieni* (Kaszab, 1940), **comb. n.** The species is known to me only by the description and included in the subgenus conditionally.

Genus ***Trichomyatis*** Schuster, 1931

Schuster in Reinig, 1931 : 893; Kaszab, 1940 : 897; 1960 : 102 (part.); 1973 : 49.—*Trichoplatynoscelis* Kaszab, 1940 : 896 (type species *T. pamirensis* Kaszab, 1940, by original designation); 1960 : 108, **syn. n.**

Type species *Trichomyatis conradti* Schuster, 1931, by original designation.

The genus is distributed mainly in Badakhshan Mountain Country.

Taxonomic note. The genus *Trichoplatynoscelis* differs from *Trichomyatis* in the medially interrupted fringe on the posterior margin of the pronotum (Kaszab, 1940). Examination of the variability in some species demonstrated that this character could vary even within species. Therefore, I propose the abovementioned synonymy.

Trichomyatis conradti Schuster, 1931.

Trichomyatis pamirensis (Kaszab, 1940), **comb. n.**

Trichomyatis tadzhika (Bogatshev, 1952), **comb. n.**

Trichomyatis nuristanensis L. Egorov, 1992.

Trichomyatis rugicollis (Kaszab, 1960), **comb. n.**

Trichomyatis michailovi L. Egorov, 1992.

Genus ***MYATIS*** Bates, 1879

Bates, 1879 : 480; Schuster in Reinig, 1931 : 896; Gebien, 1938 : 70; Kaszab, 1940 : 899.

Type species *Myatis humeralis* Bates, 1879, by subsequent (Gebien, 1938 : 70).

The species dwells in high mountain regions of the Pamirs and Tibet.

Myatis humeralis Bates, 1879 = *Myatis quadriticollis* Bates, 1879, **syn. n.**; = *Myatis variabilis* Bates, 1879, **syn. n.**; = *Leipopleura tenuissima* Reitter, 1896 (Kaszab, 1940 : 904).

Comment on the synonymy. Already the author of 3 names supposed that they belong to forms of the same species (Bates, 1879). Examination of a voluminous material (about 1400 specimens), including the types, confirmed it. The shape of the humeral angle and pronotum, the main diagnostic characters according to Bates, appeared to be strongly variable.

Myatis schaefferi Kaszab, 1940.

Genus ***PLATYSCELIS*** Latreille, 1818

Latreille, 1818 : 23; Dejean, 1821 : 65; Latreille, 1825 : 375 (part.); Guérin, 1828 : 41; Hope, 1840 : 124; Laporte, 1840 : 210 (part.); Solier, 1848 : 153, 206 (part.); Lacordaire, 1859 : 229 (part.); Jacquelin du Val, 1861 : 268 (part.); Seidlitz, 1893 : 339 (subgen.); Reitter, 1911 : 333 (part.); Gebien, 1938 : 66; Kaszab, 1940 : 908; Skopin, 1965 : 54; Egorov, 1989b: 337.

Type species *Tenebrio hypolithus* Pallas, 1781, by subsequent designation (Guérin, 1828 :41). Validated by the International Commission on Zoological Nomenclature (Egorov, 1991a; OPINION, 1729, 1993).

Nomenclatural note. Latreille (1818) described the genus *Platyscelis* with a single species, *Blaps polita* Sturm, 1807. Hence, *Blaps polita* became the type species of *Platyscelis* by the monotypy. However, *Tenebrio hypolithus* Pallas, 1781 was later designated as the type species of the genus (Guérin, 1828 : 41; Hope, 1840 : 124; Gebien, 1838 : 66) and *Blaps polita* Sturm, 1807, as the type species of the genus *Oodescelis* (Kaszab, 1940). In 1990, I discovered that the described situation resulted in turning of *Oodescelis* into a junior synonym of *Platyscelis* and this name must be replaced by the valid synonymic name *Pleiopleura*. For more than 50 years, the names *Platyscelis* and *Oodescelis* were used differently (sensu Kaszab, 1940) no less than in 10 publications by various authors. Taking this fact into consideration, I decided to fix this situation in order to retain the stability of the nomenclature of Platyscelidini. The problem was solved after my appealing to the International Commission on Zoological Nomenclature (Egorov, 1991c). Using extraordinary powers, the commission has validated the type species of the genera *Platyscelis* and *Oodescelis*.

The distributional range of the genus embraces the steppe and partly forest-steppe zones from the Hungary to Mongolia, Ustyurt Plateau, northern Aral region, Kazakh tumulous area, entire Tien Shan, Nan Shan, and significant part of northern China (Qinghai, Shanxi, Hebei, and Sichuan).

Subgenus ***Pleiopleura*** Seidlitz, 1893

Seidlitz, 1893 : 343; Kaszab, 1940 : 913; Skopin, 1965 : 54; Egorov, 1989b: 338.

Type species *Platyscelis striatus* Motschulsky, 1859, by subsequent designation (Kaszab, 1940 : 913).

Platyscelis (*Platyscelis*) *striata* Motschulsky, 1859 = *P. sulcata* Ballion, 1878 (Egorov, 1989b: 338) = *P. przewalskii* Bogatshev, 1961 (Egorov, 1989b: 338).

Platyscelis (*Platyscelis*) *ovata* Ballion, 1878.

Both species of the subgenus are known from Tien Shan.

Subgenus ***Oblongoplatyscelis*** Kaszab, 1940

Kaszab, 1940 : 916; Skopin, 1965 : 55; Egorov, 1989b: 340.

Type species *Platyscelis ganglbaueri* Seidlitz, 1893, by original description.

The subgenus is endemic to northern Tien Shan.

Platyscelis (*Oblongoplatyscelis*) *ganglbaueri* Seidlitz, 1893 = *Platyscelis seidlitzi* Reitter, 1896 (Kaszab, 1940 : 916).

Subgenus ***Platyscelis*** Latreille, 1818

Latreille, 1818 : 23; Seidlitz, 1893 : 344 (part.); Kaszab, 1940 : 917; Skopin, 1965 : 55; Egorov, 1989b: 341.—*Kaszaboscelis* Löbl et Merkl, 2003, **syn. n.**

Type species *Tenebrio hypolithus* Pallas, 1781, by subsequent designation (Guérin, 1828 : 41). Validated by the International Commission on Zoological Nomenclature (Egorov, 1991a; OPINION 1729).

Nomenclatural note. The proposal of a new name, *Kaszaboscelis*, for the subgenus *Platyscelis* by Löbl and Merkl (2003) followed the result of incorrect nomenclature changes made by these authors, who gave an erroneous solution to the question concerning the type species of the genera *Platyscelis* and *Oodescelis*. Besides, the authors inadequately ranked the name as a new subgenus, whereas, in the case when the volume of the subgenus and its diagnostic characters were not changed in comparison with preceding revisions (Kaszab, 1940; Egorov, 1989b), a new substituting name had to be applied. For these reasons, the subgeneric name *Kaszaboscelis* Löbl et Merkl, 2003 is a subjective junior synonym of *Platyscelis* Latreille, 1818.

The subgenus is heterogeneous and, on the basis of morphological characters and geographical distribution, can be subdivided into several preliminary sections.

Section I (Steppe zone of Europe and western Siberia)

Platyscelis (*Platyscelis*) *hungarica* Frivaldszky, 1865.

Platyscelis (*Platyscelis*) *hypolitha* (Pallas, 1781) (erroneous spelling: *P. hypolithus*).

?*Platyscelis* (*Platyscelis*) *spinolae* Solier, 1848.

Taxonomic note. The problem of the interpretation of the species has been discussed earlier (Kaszab, 1940; Egorov, 1989b) and is not yet solved, because the types are unknown and the original description is insufficient for and accurate determination of the species. I still treat *Platyscelis spinolae* as a junior synonym of *Platyscelis hypolitha*, because only this species was recorded from the Crimea during long-term investigations (type locality is designated as "Crimee"). However, I shall abstain from establishing the synonymy.

Section II (Ustyurt Plateau, northern Aral region, central Altai, and foothills and middle mountain belt of Tien Shan)

Platyscelis (*Platyscelis*) *rugifrons* (Fischer-Waldheim, 1823) = *P. intermedium* Motschulsky, 1859 (Egorov, 1990d: 890) = *P. potanini* Bogatshev, 1961 (Egorov, 1989b: 343).

Platyscelis (*Platyscelis*) *angusticollis angusticollis* Kaszab, 1940 = *P. skopini* Kaszab, 1940 (Egorov, 1989b: 344).

Platyscelis (*Platyscelis*) *angusticollis platytarsis* Kaszab, 1940 (subgeneric status: Egorov, 1989b: 345).

Platyscelis (*Platyscelis*) *kirghizica* Reitter, 1896.

Platyscelis (*Platyscelis*) *ketmeniana* L. Egorov, 1989.

Section III (China, Mongolia, and southern Siberia)

Platyscelis (*Platyscelis*) *bogatshevi* L. Egorov, 1989.

Taxonomic note. Previously I included this species in the genus *Oblongoodescelis* (Egorov, 1989b). However, examination of an additional material on *Platyscelis* from China made it possible to conclude that this species is more related to *P. suiyuana* rather than to *P. ganglbaueri*. Therefore, *P. bogatshevi* is included in the subgenus *Platyscelis*. The similarity in the structure of the fore tibia in *P. bogatshevi* and *P. ganglbaueri* should be considered as a result of parallelism.

Platyscelis (*Platyscelis*) *suiyuana* Kaszab, 1940.

Platyscelis (*Platyscelis*) *brevis* Baudi, 1876 = *Blaps rugifrons* Germar, 1824; non Fischer-Waldheim, 1823 (Egorov, 1990d: 891).

Comment on the synonymy. Dejean (1833) indicated this species under the name *Platyscelis reflexus* Mannerheim, 1825. However, I am not yet acquainted with the types or their description of these species; therefore, I abstain from the establishing of the synonymy, all the more so, because it can lead to a new species name, because *P. reflexus* is a senior objective synonym.

Platyscelis (*Platyscelis*) *confusa* Schuster, 1934 = *P. hauseri* Reiter, 1899; non Reitter, 1895 (Schuster, 1934 : 75).

Nomenclatural note. The name *P. confusa* was properly suggested by Schuster (1934) for eliminating the homonymy of *P. hauseri* Reitter, 1895 and *P. hauseri* Reitter, 1899. Later it was found that *P. hauseri* Reitter, 1895 was a junior synonym of *Prosodes phylacoides* Fischer. Probably, Kaszab (1940) retained the name *P. hauseri* Reitter, 1895 for this species on the basis of this fact. However, according to the International Code of Zoological Nomenclature (1999, Article 60.3), the necessity to eliminate the homonymy is present even in cases when one name is a junior synonym and is not used further. Therefore, the name suggested by Schuster should be left for the designation of this species.

Platyscelis (*Platyscelis*) *licenti* Kaszab, 1940.

Platyscelis (*Platyscelis*) *gebieni* Schuster, 1915.

Platyscelis (*Platyscelis*) *freyi* Kaszab, 1940.

Platyscelis (*Platyscelis*) *subordata* Seidlitz, 1893 = *P. strigicollis* Lewis, 1895 (Kaszab, 1940 : 921).

Platyscelis (*Platyscelis*) *ballioni* Reitter, 1889.

Platyscelis (*Platyscelis*) *obovata* Ren,, 1999.

Platyscelis (*Platyscelis*) *amdoensis* L. Egorov, 1989.

Subgenus ***Paraplatyscelis*** Kaszab, 1940

Kaszab, 1940 : 936; Skopin, 1965 : 57; Egorov, 1989b: 347.

Type species *Platyscelis sinuata* Seidlitz, 1893, by original description.

The subsgenus is endemic to the Issyk Kul Depression.

Platyscelis (*Paraplatyscelis*) *sinuata* Seidlitz, 1893.

Genus ***SOMOCOELIA*** Kraatz, 1882

Kraatz in Heyden, 1882b: 331; Kaszab, 1938c: 627 (Blaptini); 1940 : 905; 1960 : 110; Egorov, 1998b: 209.

Type species *Somocoelia pinguis* Kraatz, 1882, by monotypy.

The modern revision of the genus was performed by me earlier (Egorov, 1998b).

The range of the genus is disrupted: Kopet Dagh and western Hissar-Darvaz Mountain Country.

Somocoelia pinguis pinguis Kraatz, 1882 = *Platyscelis globulus* Seidlitz, 1983 (Kaszab, 1940 : 906).

Somocoelia pinguis kuhitangi L. Egorov, 1998.

Somocoelia pinguis gracilipes Kaszab, 1940.

Somocoelia arnoldii L. Egorov, 1992.

Genus ***SOMOCOELOPLATYS*** Skopin, 1968

Skopin, 1968 : 81.

Type species *Platynoscelis boroldaica* Skopin, 1965, by original description.

The genus is endemic to western Tien Shan.

Somocoeloplatys boroldaica (Skopin, 1965).

Genus ***MICROPLATYSCELIS*** Kaszab, 1940

Kaszab, 1940 : 144; 1960 : 81; Skopin, 1965 : 52; Kaszab, 1970 : 123.

Type species *Faustia seriepunctata* Reitter, 1890, by original description.

The representative of the genus dwells in plain and partly submountain regions of central and southern Uzbekistan, southwestern Kazakhstan, southwestern Tajikistan, eastern Turkmenistan, and northern Afghanistan.

Microplatyscelis seriepunctata (Reitter, 1890).

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