

Gastropods and small bivalves of fresh and brackish waterbodies in the southern Kurile Islands. Annotated list of species

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A review of the literature and original data on gastropods and small bivalves, inhabiting fresh- and brackish waterbodies in the southern Kurile Islands is presented. The annotated list includes 67 species and 1 subspecies, in 15 genera, and 9 families.

Брюхоногие и мелкие двустворчатые моллюски пресных и солоноватых вод южных Курильских островов. Аннотированный список видов

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Пресноводные и солоноватоводные брюхоногие моллюски южных Курильских островов представлены 25 видами и 1 подвидом из 8 родов и 7 семейств. Род *Polypylis* Pilsbry и 4 вида - *P. nitidella* (Martens), *Lymnaea viridis* Quoy et Gaimard, *Anisus illibatus* (Westerlund) и *A. spirillus* (Gould) - отмечены в этом регионе впервые. Восемь видов и 1 подвид из 3 родов (*Cecina* A. Adams, *Cincinna* Hubner и *Anisus* Studer) являются новыми для науки.

Пресноводные мелкие двустворчатые моллюски надсемейства *Pisidioidea* южных Курильских островов принадлежат 42 видам из 7 родов и 2 семейств. Два рода (*Conventus* Pirogov et Starobogatov, *Lacustrina* Sterki), 2 подрода (*Arcteuglesa* Pirogov et Starobogatov, *Roseana* Fagot) рода *Euglesa* Leach in Jenyns и 2 вида - *Conventus akkesiensis* (Mori), *Euglesa* (*Cyclocalyx*) *japonica* (Pilsbry et Hirase) найдены здесь впервые. Пятнадцать видов из 5 родов (*Euglesa*, *Cingulipisidium* Pirogov et Starobogatov, *Pseudeupera* Germain, *Conventus*, *Musculium* Link) являются новыми для науки.

В списке видов приведены данные по синонимии и распространению всех перечисленных видов.

INTRODUCTION

Investigation of Kurile non-marine molluscs has a rather short history. It was begun by Japanese hydrobiologists in the 1930 s. In the first paper on this subject Miyadi [1933] examined freshwater molluscs of Iturup Island. He reported *Viviparus malleatus* Reeve, *Valvata japonica* Martens,

Lymnaea japonica Jay and *Gyraulus* sp. Later occurrence of *Valvata japonica* on Iturup Island was confirmed in other papers [Miyadi, 1935; Miyadi, Mori, 1933a, b]. Miyadi [1938] studied the bottom fauna of the lakes in Kunashir Island also. He found *Viviparus malleatus* and undefined species of *Lymnaea* Lamarck, *Anisus* Agassiz in Charpentier and *Amnicola* Gould et Haldeman. Subsequently Habe [1942] described *Amnicola* sp. as *A. miyadai* Habe. Mori [1938a] published results of a study of the Japanese Planorbidae. He noted 4 species for the Kurile Islands - *Anisus albus* (Muller), *A. noziriensis* Mori, *A. gredleri* (Bielz) and *A. infirmus* Mori. Thus, Japanese scientists listed for southern Kurile Islands 9 species of freshwater gastropods only, in 6 families.

Russian study of molluscs in fresh and brackish waters of Kurile Islands began mid-century. Shadin [1952] reported 1 species (*Viviparus malleatus*) of Kurile gastropods. Starobogatov [in Moskvicheva, 1979] determined that this species occurs only in Japan. He renamed it as *Cipangopaludina kurilensis* Starobogatov. The same species and 3 others - *Lymnaea auricularia plicatula* Bens, *Anisus acronicus* (Ferussac) and *Amnicola miyadai* - were found in lakes on Kunashir [Kluchareva et al., 1969]. Later Kruglov and Starobogatov [1989] studied Kurile *Lymnaea* and described 4 new species: *L. kurilensis*, *L. iturupica*, *L. zarenkovi* and *L. kunashirica*. Records of the brackishwater species *Cecina manchurica* A. Adams and *Batillaria cumingii* (Gosse) exist for the southern Kuriles [Kussakin, 1956; Golikov, Kussakin, 1962; Golikov, Scarlato, 1967; Volova et al., 1979].

The most complete data on non-marine Kurile gastropods were presented by Bogatov and Zatravkin [1990]. Their monograph on fresh and brackishwater gastropods of the Russian Far East includes records of 8 freshwater species and 2 brackishwater ones, inhabiting southern Kuriles.

The first investigators of the Kurile *Pisidioidea* (*Bivalvia*) were also Japanese hydrobiologists - Miyadi [1933, 1937, 1938] and Mori [1933, 1935, 1936, 1937, 1938b]. Two species in the family *Sphaeriidae* were recorded by Miyadi [1933, 1938] from the southern Kurile Islands. In the family *Euglesidae* Miyadi [1933] noted that some species seem to be endemic for Iturup Island but he did not identify them. Mori studied Kurile small bivalves in more detail. He listed 11 species, in the family *Euglesidae* [1935, 1938b] and 2 species, in the family *Sphaeriidae* [1933, 1935, 1936, 1937] as inhabiting southern Kurile Islands. Later the same species were recorded in some catalogues of Japanese molluscs [Kuroda, 1963; Habe, 1977].

Besides these papers, fragmentary data on freshwater malacofauna of the Kurile Islands were presented by some Russian zoologists [Shadin, 1952; Kluchareva et al., 1969]. The most present and precise data on

island small bivalves were reported by Starobogatov and Budnikova [1985] in their paper on freshwater bivalves from Kunashir Island. They listed 21 species, in two families (*Euglesidae* and *Sphaeriidae*), 16 of which were identified as new to science. Their report included records of 5 Mori's species [1938b], two of which were known also from Iturup and Hokkaido Islands, two ones from Hokkaido and one species from Iturup Island. Thus, at the present time 28 species of superfamily *Pisidioidea*, in 6 genera, and 2 families, were known from the southern Kurile Islands.

In 1994 we collected non-marine gastropods and small bivalves on four southern Kurile Islands: Iturup, Kunashir, Shikotan and Zelyony. Twenty five species and 1 subspecies of *Gastropoda*, belonging to 8 genera, in 7 families were found in these islands. Nine species, in 2 genera and 2 families inhabit brackish waters, littoral and supralittoral zones of southern Kuriles. Sixteen species and subspecies, in 6 genera and 5 families inhabit southern Kurile fresh waterbodies. Eight species and 1 subspecies, in 3 genera (*Cecina* A. Adams, *Cincinna* Hubner and *Anisus* Studer) are new to science. Their diagnoses are not given in this paper because they are in press now. Genus *Polypylis* Pilsbry and 4 species are new for this region. *P. nitidella* (Martens), *Anisus japonicus* (Martens), *A. illibatus* (Westerlund) and *A. spirillus* (Gould) were known in Japan only [Martens, 1867; Mori, 1938a and others]. *Cecina tatarica* (Schrenck) was recorded from the continental supralittoral of the Sea of Japan only [Schrenck, 1867]. East Asian species *L. viridis* Quoy et Gaimard was known from Japan also [Bogatov, Zatravkin, 1990].

Records on *Cincinna japonica* on Iturup Island [Miyadi, 1933; 1935; Miyadi, Mori, 1933a; 1933b; Starobogatov, Zatravkin, 1985; Bogatov, Zatravkin, 1990] can be explained as a mistake of identification. In our opinion, this species occurs southern part of Sakhalin, Hokkaido and Honshu only. Further, Miyadi and Mori [Miyadi, 1933; Miyadi, Mori, 1933a] mentioned that specimens from Iturup are lower and have "more conspicuous costulae on the shell than those from Honsyu". We have noted the same. In view of this we have described *Cincinna* specimens with the depressed shell from Iturup Island as a new to species [Prozorova, in press]. Besides this species we found on Iturup Island specimens of *Cincinna* with discoidal shell. The main shell characteristics of these molluscs (shape and speed of increasing whorls) were the same that those of *C. middendorffi* Moskvicheva in Starobogatov et Zatravkin. But shell surface characters were different than those of *C. middendorffi middendorffi*. Given these data we have described discoidal *Cincinna* from Iturup as a new subspecies [Prozorova, in press].

Freshwater small bivalves were collected from 60 different habitats of the same four southern Kurile Islands. Molluscs are studied by both

conchological and anatomical methods. Generic determination was based on anatomical peculiarities, specific - on conchological characters. Freshwater species of small bivalve molluscs are difficult to identify by traditional means because the shells of these animals are very poor with diagnostic features. Therefore we used "comparatore method" of Starobogatov [Logvinenko, Starobogatov, 1971; and many others]. This euristic manner permits to compare shells of different dimension and to match the figures. A total of 42 species, belonging to 7 genera, in 2 families *Euglesidae* and *Sphaeriidae* are identified from the studied islands. Family *Pisidiidae* was not found. *Pisidium etorohuense* described by Mori [1938b] is transferred to genus *Lacustrina* Sterki, in the family *Euglesidae* based on anatomical features [Prozorova, in press]. The family *Euglesidae* contained the most species - 37, *Sphaeriidae* - only 5. Two genera (*Conventus* Pirogov et Starobogatov) and two subgenera (*Arcteuglesa* Pirogov et Starobogatov, *Roseana* Fagot) of the genus *Euglesa* Leach in Jenyns are first records for this region. Two species were found for the first time in the southern Kuriles. Formely these species were known from Hokkaido only [Mori, 1938b] - *Conventus akkesiensis* (Mori), or from northern Kuriles and Hokkaido - *Euglesa japonica* (Pilsbry et Hirase). A new distribution records were established for 12 species. Fifteen species are noted as new to science. Their diagnoses are not given in this paper because they are in press now.

LIST OF SPECIES

GASTROPODA PULMONATA

FAMILY LYMNAEIDAE RAFINESQUE, 1815

1. Genus *Lymnaea* Lamarck, 1797

Subgenus *Radix* Monfort, 1810

1. *L.(R.) japonica* Jay, 1846

Locality - Iturup Island.

2. *L.(R.) iturupica* Kruglov et Starobogatov, 1989

Synonymy - *L. japonica* [Miyadi, 1933, part.].

Locality - southern Kurile Islands (Iturup, Shikotan and Zelyony), Hokkaido.

3. *L.(R.) kurilensis* Kruglov et Starobogatov, 1989

Synonymy - *L. japonica* [Miyadi, 1933, part.].

Locality - southern Kurile Islands and Hokkaido.
 4. *L.(R.) zarenkovi* Kruglov et Starobogatov, 1989
 Synonymy - *L. japonica* [Miyadi, 1933, part.].
 Locality - Iturup Island.
 5. *L.(R.) kunashirica* Kruglov et Starobogatov, 1989
 Synonymy - *L. auricularia plicatula* [Kluchareva et. al., 1969].
 Locality - Kunashir Island.
 Subgenus *Orientogalba* Kruglov et Starobogatov, 1985
 6. *L.(O.) viridis* Quoy et Gaimard, 1833
 Locality - Eastern Asia, Micronesia, southern Kurile Islands (Iturup, Shikotan, Zelyony).

FAMILY PLANORBIDAE RAFINESQUE, 1815

II. Genus *Anisus* Studer, 1820

Subgenus *Gyraulus* Agassiz in Charpentier, 1837
 7. *A.(G.) noziriensis* Mori, 1938
 Synonymy - *A.(G.) albus noziriensis* [Mori, 1938a]; *G. albus* [Kuroda, 1963, part.]; *A.(G.) acronicus* [Kluchareva et. al., 1969, part.].
 Locality - southern Kurile Islands, Hokkaido, Honshu.
 8. *A.(G.) infirmus* Mori, 1938
 Synonymy - *A.(G.) laevis infirmus* [Mori, 1938a]; *A.(G.) acronicus* [Kluchareva et. al., 1969, part.]; *G. infirmus* [Kuroda, 1963].
 Locality - southern Kurile Islands (Kunashir and Zelyony), southern part of Sakhalin Island.
 9. *A.(G.) spirillus* (Gould, 1859)
 Synonymy - *Planorbis spirillus* Gould, 1859; *A.(G.) albus* [Mori, 1938, part.]; *A.(G.) gredleri* [Mori, 1938a, part.]; *A.(G.) acronicus* [Kluchareva et. al., 1969, part.]; *G. albus* [Kuroda, 1963, part.].
 Locality - Japanese Islands (Honshu, Kyushu, Hokkaido), southern Kurile Islands, southern part of Sakhalin Island.
 10. *A.(G.) japonica* (Martens, 1867)
 Synonymy - *Planorbis compressus* var. *japonicus* [Martens, 1867]; *Anisus (G.) albus* [Mori, 1938a]; *A.(G.) acronicus* [Kluchareva et. al., 1969, part.].
 Locality - southern Kurile Islands, Hokkaido, Honshu.
 11. *A.(G.) illibatus* (Westerlund, 1883)
 Synonymy - *Planorbis (G.) illibatus* Westerlund, 1883; *A.(G.) gredleri* (Biels) [Mori, 1938a, part.]; *G. gredleri* [Kuroda, 1963, part.].
 Locality - Hokkaido, southern Kurile Islands (Iturup and Zelyony).
 12. *A.(G.) sp. 1* Prozorova, sp. nov. (in press)

Synonymy - *A.(G.) albus* (Muller) [Mori, 1938a, part.]; *G. albus* [Kuroda, 1963, part.].

Locality - southern Kurile Islands (Iturup and Zelyony).

III. Genus *Polypylis* Pilsbry, 1906

Subgenus *Polypylis* s. str.

13. *P.(P.) nitidella* (Martens, 1877)

Synonymy - *Planorbis nitidellus* Martens, 1977; *P. (Segmentina) mica* Westerlund, 1883; *nitidella* [Kuroda, 1933]; *Anisus (S.) nitidellus* [Mori, 1938a]; *Polypylis nitidella* [Kuroda, 1963].

Locality - Honshu, Hokkaido and Kunashir Islands.

PECTINIBRANCHIA

FAMILY BELLAMYIDAE ROURBACH, 1937

IV. Genus *Cipangopaludina* Hannibal, 1912

Subgenus *Cipangopaludina* s. str.

14. *C.(C.) kurilensis* Starobogatov in Moskvicheva, 1979

Synonymy - *Viviparus malleatus* [Miyadi, 1933, 1938; Shadin, 1952]; *Cipangopaludina malleata* [Kluchareva et al., 1969].

Locality - southern Kurile Islands (Kunashir, Iturup), southern Sakhalin, Japan.

FAMILY VALVATIDAE GRAY, 1840

V. Genus *Cincinna* Hubner, 1810

Subgenus *Sibirovalvata* Starobogatov et Streletzkaja, 1967

15. *C.(S.) sp. 1* Prozorova, sp. nov. (in press)

Synonymy - *Valvata japonica* [Miyadi, 1933; Miyadi, Mori, 1933a, part., 1933b, part.]; *V. piscinalis japonica* [Miyadi, 1935, part.]; *V. (Cincinna) japonica* [Kuroda, 1963, part.]; *C. japonica* [Starobogatov, Zatravkin, 1985, part.; Bogatov, Zatravkin, 1990, part.].

Locality - Iturup Island.

16. *C.(S.) middendorffi* subsp. 1 Prozorova, subsp. nov. (in press)

Locality - Iturup Island.

FAMILY KOLHYMAMNICOLIDAE STAROBOGATOV IN STAROBOGATOV ET SITNIKOVA, 1983

VI. Genus *Kolhymamnicola* Starobogatov et Budnikova, 1976

17. *K. miyadai* (Habe, 1942)

Synonymy - *Amnicola miyadai* [Habe, 1942; Kuroda, 1963; Kluchareva et al., 1969].

Locality - southern Kurile Islands (Kunashir, Zelyony).

FAMILY POMATIOPSIDAE SIMPSON, 1865

VII. Genus *Cecina* A. Adams, 1861

18. *C. manchurica* A. Adams, 1861

Synonymy - *Truncatella manchurica* [Golikov, Kussakin, 1962, part.].

Locality - continental and island shore of the Sea of Japan.

19. *C. tatarica* (Schrenck, 1867)

Synonymy - *C. manchurica* [Golikov, Scarlato, 1967, part.; Volova et al., 1979, part.]; *Truncatella manchurica* [Golikov, Kussakin, 1962, part.].

Locality - continental and island shore of the Sea of Japan.

20. *C. scarlatoi* Prozorova, 1996

Synonymy - *C. manchurica* [Golikov, Scarlato, 1967, part.; Volova et al., 1979, part.]; *Truncatella manchurica* [Golikov, Kussakin, 1962, part.].

Locality - continental and island shore of the Sea of Japan.

21. *C. murshudovi* Prozorova, 1996

Synonymy - *C. manchurica* [Golikov, Scarlato, 1967, part.; Volova et al., 1979, part.]; *Truncatella manchurica* [Golikov, Kussakin, 1962, part.].

Locality - southern Kurile Islands (Kunashir, Zelyony), may be found in Japan.

22. *C. kunashirica* Prozorova, 1996

Synonymy - *C. manchurica* [Golikov, Scarlato, 1967, part.; Volova et al., 1979, part.]; *Truncatella manchurica* [Golikov, Kussakin, 1962, part.].

Locality - southern Kurile Islands (Kunashir, Shikotan), may be found in Japan.

23. *C. satrae* Prozorova, 1996

Locality - Kunashir Island.

24. *C. elenge* Prozorova, 1996

Locality - Kunashir Island.

25. *C. alta* Prozorova, 1996

Locality - Kunashir Island.

FAMILY POTAMIDIDAE H. ET A. ADAMS, 1854

VIII. Genus *Batillaria* Benson, 1842

26. *B. cumingii* (Grosse, 1862)

Synonymy - *Potamides atterima* [Kussakin, 1956].

Locality - continental and island shore of the Sea of Japan and that of the Eastern-Chinese sea.

BIVALVIA

SUPERFAMILY PISIDIOIDEA GRAY IN TURTON, 1857

FAMILY EUGLESIDAE PIROGOV ET STAROBOGATOV, 1974

SUBFAMILY LACUSTRININAE KORNIUSHIN, 1989

IX. Genus *Lacustrina* Sterki, 1916

27. *L. etorohuense* (Mori, 1935)

Synonymy - *Pisidium baicalense etorohuense* [Mori, 1935, 1938b; Kuroda, 1963; Habe, 1977], *Pisidium etorohuense* [Starobogatov, 1970; Zatravkin, 1985].

Locality - Iturup Island.

SUBFAMILY EUGLESINAE PIROGOV ET STAROBOGATOV, 1974

X. Genus *Henslowiana* Fagot, 1892

28. *H. uenoi* (Mori, 1938)

Synonymy - *Pisidium uenoi* [Mori, 1938b; Kuroda, 1963; Habe, 1977], *Galileja uenoi* [Kluchareva, et. al., 1969], *Euglesa uenoi* [Starobogatov, Budnikova, 1985].

Locality - southern Kurile Islands.

29. *H. morii* (Starobogatov et Budnikova, 1985)

Synonymy - *Euglesa morii* [Starobogatov, Budnikova, 1985].

Locality - southern Kurile Islands.

30. *H. elegantula* (Starobogatov et Budnikova, 1985)

Synonymy - *Euglesa elegantula* [Starobogatov, Budnikova, 1985].

Locality - southern Kurile Islands.

XI. Genus *Euglesa* Leach in Jenyns, 1831

Subgenus *Arctoeuglesa* Pirogov et Starobogatov, 1974

31. *E.(A.) kurodai* (Mori, 1938)
 Synonymy - *Pisidium kurodai* [Mori, 1938b; Kuroda, 1963; Habe, 1977].
 Locality - southern Kurile Islands.
32. *E.(A.) sp. 1 Prozorova, sp. nov.* (in press)
 Locality - Kurile Islands, Hokkaido.
 Subgenus *Cyclocalyx* Dall, 1903
33. *E.(C.) cyclocalyx* Starobogatov et Budnikova, 1985
 Locality - Kurile Islands, Hokkaido.
34. *E.(C.) sp. 2 Starobogatov, sp. nov.* (in press)
 Locality - southern Kurile Islands.
35. *E.(C.) japonica* (Pilsbry et Hirase, 1908)
 Synonymy - *Pisidium japonicum* [Pilsbry, Hirase, 1908; Mori, 1938b; Kuroda, 1963; Habe, 1977].
 Locality - Kurile Islands, Hokkaido.
 Subgenus *Roseana* Fagot, 1892
36. *E.(R.) sp. 1 Prozorova, sp. nov.* (in press)
 Locality - southern Kurile Islands.
 Subgenus *Casertiana* Fagot, 1892
37. *E.(C.) inflata* (Mori, 1938)
 Synonymy - *Pisidium cinereum inflatum* [Mori, 1938b; Kuroda, 1963; Habe, 1977].
 Locality - southern Kurile Islands, Hokkaido.
38. *E.(C.) elliptica* (Mori, 1938)
 Synonymy - *Pisidium ellipticum* [Mori, 1938b; Kuroda, 1963; Habe, 1977].
 Locality - southern Kurile Islands, Hokkaido.
39. *E.(C.) nikkoensis* (Mori, 1938)
 Synonymy - *Pisidium cinereum nikkoense* [Mori, 1938b; Kuroda, 1963; Habe, 1977], *Galileja nikkoensis* [Kluchareva et al., 1969].
 Locality - southern Kurile Islands, Hokkaido.
40. *E.(C.) subcinerea* Starobogatov et Budnikova, 1985
 Locality - southern Kurile Islands, Hokkaido.
41. *E.(C.) kurilica* Starobogatov et Budnikova, 1985
 Locality - southern Kurile Islands.
42. *E.(C.) sp. 1 Prozorova, sp. nov.* (in press)
 Locality - southern Kurile Islands.
43. *E.(C.) sp. 2 Prozorova, sp. nov.* (in press)
 Locality - Iturup Island.
44. *E.(C.) iturupica* Prozorova (in press)

- Locality - Iturup Island.
45. *E.(C.) ambigua* Starobogatov et Budnikova, 1985
 Locality - Kunashir Island.
46. *E.(C.) subdepressa* Starobogatov et Budnikova, 1985
 Locality - Kunashir Island.
47. *E.(C.) subplanata* Starobogatov et Budnikova, 1985
 Locality - Kunashir Island.
48. *E.(C.) altiumbonata* Starobogatov et Budnikova, 1985
 Locality - Kunashir Island.
49. *E.(C.) subfossarina* Starobogatov et Budnikova, 1985
 Locality - Kunashir Island.
50. *E.(C.) klucharevae* Starobogatov et Budnikova, 1985
 Locality - Kunashir Island.

XII. Genus *Pseudeupera* Germain, 1913

Subgenus *Pseudeupera* s. str.

51. *P.(P.) alta* (Mori, 1938)
 Synonymy - *Pisidium subtruncatum altum* [Mori, 1938b; Kuroda, 1963; Habe, 1977], *Galileja subtruncata alta* [Kluchareva et al., 1969], *Euglesa alta* [Starobogatov, Budnikova, 1985].
 Locality - southern Kurile Islands, Hokkaido.
52. *P.(P.) subalta* (Starobogatov et Budnikova, 1985)
 Synonymy - *Euglesa subalta* [Starobogatov, Budnikova, 1985].
 Locality - Kunashir Island.
53. *P.(P.) kunasiriensis* (Mori, 1938)
 Synonymy - *Pisidium pulchellum kunasiriense* [Mori, 1938b; Kuroda, 1963; Habe, 1977], *Galileja pulchella kunasiriensis* [Kluchareva et al., 1969].
 Locality - southern Kurile Islands, Hokkaido.
 Subgenus *Tetragonocyclas* Pirogov et Starobogatov, 1974
54. *P.(T.) subtetragona* (Starobogatov et Budnikova, 1985)
 Synonymy - *Euglesa subtetragona* [Starobogatov, Budnikova, 1985].
 Locality - southern Kurile Islands.
55. *P.(T.) quadrangula* (Starobogatov et Budnikova, 1985)
 Synonymy - *Euglesa quadrangula* [Starobogatov, Budnikova, 1985].
 Locality - Kurile Islands.

XIII. Genus *Cingulipisidium* Pirogov et Starobogatov, 1974

Subgenus *Cingulipisidium* s. str.

56. *C.(C.) pulchricingulata* (Starobogatov et Budnikova, 1985)
Synonymy - *Euglesa pulchricingulata* [Starobogatov, Budnikova, 1985].

Locality - southern Kurile Islands.

57. *C.(C.) sp. 1* Starobogatov, sp. nov. (in press)

Locality - Kunashir Island.

58. *C.(C.) sp. 2* Prozorova, sp. n. (in press)

Locality - southern Kurile Islands, Hokkaido.

XIV. Genus *Conventus* Pirogov et Starobogatov, 1974

Subgenus *Kurilipisidium* Prozorova, subgen. nov. (this issue)

59. *C.(K.) akkesiensis* (Mori, 1938)

Synonymy - *Pisidium conventus akkesiense* [Mori, 1938b; Kuroda, 1963; Habe, 1977].

Locality - southern Kurile Islands (Iturup and Zelyony), Hokkaido.

60. *C.(K.) subtilis* Prozorova, sp. nov. (this issue)

Locality - southern Kurile Islands - Iturup and Zelyony.

61. *C.(K.) occultus* Prozorova, sp. nov. (this issue)

Locality - Zelyony Island, may be found on Hokkaido.

62. *C.(K.) iturupensis* Prozorova, sp. nov. (this issue)

Locality - Iturup Island.

FAMILY SPHAERIIDAE JEFFREYS, 1862

SUBFAMILY MUSCULINAE STAROBOGATOV ET STADNICHENKO, 1984

XV. Genus *Musculium* Link, 1807

63. *M. miyadai* (Mori, 1933)

Synonymy - *Sphaerium miyadai* [Mori, 1933, 1935, 1936, 1937; Miyadi 1933, 1937, 1938; Kuroda, 1963; Habe, 1977].

Locality - southern Kurile Islands, Hokkaido.

64. *M. morii* Starobogatov et Budnikova, 1985

Locality - southern Kurile Islands.

65. *M. sp. 1* Prozorova, sp. nov. (in press)

Locality - Iturup Island.

66. *M. sp. 2* Prozorova, sp. nov. (in press)

Locality - Zelyony Island, may be found on Hokkaido.

67. *M. sp. 3* Prozorova, sp. nov. (in press)

Locality - Zelyony Island, may be found on Hokkaido.

68. *M. sp. 4* Prozorova, sp. nov. (in press)

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