

Review of the Shell-bearing Gastropods in the Russian Waters of the East Sea (Sea of Japan). III. Caenogastropoda: Neogastropoda

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ABSTRACT

Based on investigation of collections at the A.V. Zhirmunsky Institute of Marine Biology of the Far-Eastern Branch of the Russian Academy of Sciences (Vladivostok) and Zoological Institute of the Russian Academy of Sciences (Saint Petersburg), as well as on the analysis of published data, the species composition of shell-bearing gastropod mollusks of the Russian waters of the East Sea (Sea of Japan), consisting of 331 species and subspecies, has been identified. Each species is assigned to a biogeographic grouping in the study area. Its type locality and habitat (depth and substrate) are also documented. The third part of this review includes 129 species in Neogastropoda (Caenogastropoda).

Key words: Gastropoda, East Sea (Sea of Japan), faunal.

INTRODUCTION

The fauna of shell-bearing gastropod mollusks of the Russian waters of the East Sea includes 331 species and subspecies: 306 prosobranchs, 24 opisthobranchs, and 1 pulmonate. The third part of this review includes 129 species in Neogastropoda (Caenogastropoda).

For each species a brief synonymy is given, including the original description, and reference to the most complete faunal reports on the mollusks of Korea (Min, 2004), Japan (Higo *et al.*, 1999), and Russia (Kantor and Sysoev, 2006). Its type locality is also listed, as well as its distribution. The distribution includes its biogeographic grouping, the specific faunal zones (Fig. 1) where it was obtained in the Russian waters of the East Sea (Roman numerals), and a general statement of its abundance. Its habitat is also listed, and includes data on depth and substrate which refer only to its distribution in the

Russian waters of the East Sea.

The classification of gastropod mollusks developed by Bouchet and Rocroi (2005) is used in the paper up

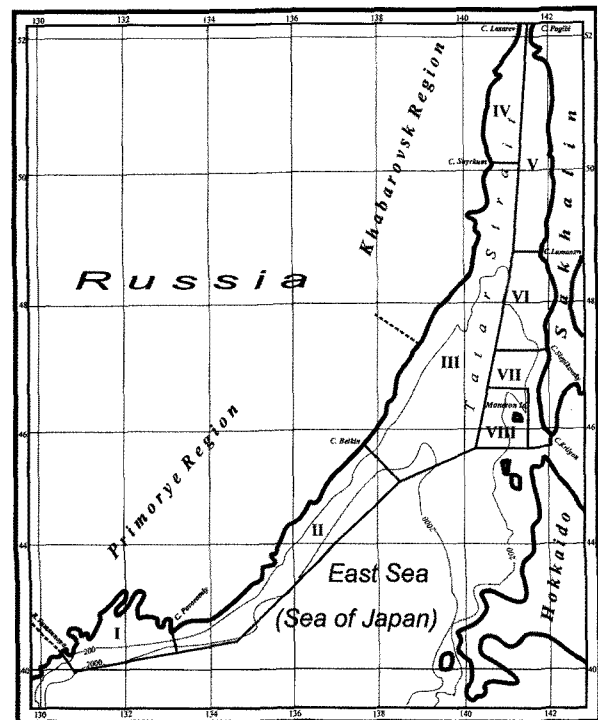


Fig. 1. The Faunal zones in the Russian Waters of the East Sea (Sea of Japan).

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to superfamily rank. Also, all shell-bearing gastropod mollusks have been divided into the groups of Patellogastropoda, Vetigastropoda, Cocculiniformia, Caenogastropoda and Heterobranchia, without assigning them a taxonomic rank. Subordinate taxa within a higher rank taxon are listed, as a rule, in alphabetical order. Subgenera were not distinguished.

SYSTEMATICS

Caenogastropoda

Neogastropoda

Superfamily Buccinoidea Rafinesque, 1815

Family Buccinidae Rafinesque, 1815

Subfamily Ancistrolepisinae Habe and Sato, 1973

Genus *Ancistrolepis* Dall, 1895

Type species: *Chrysodomus eucoemus* Dall, 1891.

157. *Ancistrolepis okhotensis* Dall, 1925

[*Ancistrolepis okhotensis* Dall, 1925: 4, pl. 30, fig. 1; Kantor and Sysoev, 2006: 154, pl. 70 D; *Clinopegma okhotensis*: Higo *et al.*, 1999: 227].

Type locality: Terpenia Cape, Sakhalin (Sea of Okhotsk).

Distribution: Pacific, mainly Asian, boreal species; II, VIII; rare.

Habitat: 40-220 m; mainly sand and muddy sand.

158. *Ancistrolepis sasakii* (Habe and Ito, 1970)

[*Clinopegma sasakii* Habe and Ito, 1970: 107-108, text-fig. 1; Higo *et al.*, 1999: 227; *Ancistrolepis sasakii*: Kantor and Sysoev, 2006: 154, pl. 70 E-E'].
Type locality: Hokkaido, East Sea.

Distribution: Asian low-boreal species; III, VII; rare.

Habitat: 350-594 m; mud.

Genus *Clinopegma* Grant and Gale, 1931

Type species: *Buccinum unicum* Pilsbry, 1905.

159. *Clinopegma decora* (Dall, 1925)

[*Ancistrolepis decora* Dall, 1925: 3, pl. 35, fig. 10; *Clinopegma decora*: Higo *et al.*, 1999: 226; Kantor and Sysoev, 2006: 155, pl. 71 C].

Type locality: South-western Sakhalin (East Sea).

Distribution: Pacific boreal species; II, V; rare.

Habitat: 20-64 m; mud and muddy sand.

Genus *Pseudoliomesus* Habe and Sato, 1972

Type species: *Tritonium (Buccinum) ooides* Middendorff, 1841.

160. *Pseudoliomesus canaliculata* (Dall, 1874)

[*Buccinopsis canaliculata* Dall, 1874: 252; *Pseudoliomesus ooides canaliculatus*: Higo *et al.*, 1999: 227; *Pseudoliomesus ooides ooides*: Min, 2004: 219, fig. 582; *Pseudoliomesus canaliculata*: Kantor and Sysoev, 2006: 157, pl. 72 A].

Type locality: Nunivak Island, Aleutian Islands.

Distribution: Pacific boreal species; I; rare.

Habitat: 62 m; muddy sand.

Subfamily Beringiinae Golikov and Starobogatov, 1975

Genus *Beringius* Dall, 1887

Type species: *Chrysodomus crebricostatus* Dall, 1877.

161. *Beringius stimpsoni* (Gould, 1860)

[*Buccinum (Neptunea) stimpsoni* Gould, 1860: 325; *Beringion stimpsoni*: Higo *et al.*, 1999: 223; *Beringius stimpsoni*: Kantor and Sysoev, 2006: 158-159, pl. 73 D].

Type locality: Arikamchechen Island, Bering Strait.

Distribution: Boreal-arctic, mainly Pacific species; V; single record only.

Habitat: 100-150 m; muddy sand.

Subfamily Buccininae Rafinesque, 1815

Genus *Buccinum* Linnaeus, 1758

Type species: *Buccinum undatum* Linnaeus, 1758.

162. *Buccinum acuminulatum* Golikov, 1980

[Golikov, 1980: 256-257, fig. 7 B, 326 (2), pl. 20 (1a, 1b); Kantor and Sysoev, 2006: 161, pl. 75 F].

Type locality: Tatar Strait, Sakhalin Island.

Distribution: Asian low-boreal species; VII; single record only.

Habitat: 46 m; sand with shells.

163. *Buccinum acutispiratum* Dall, 1907

[*Buccinum acutispiratum* Dall, 1907: 146; 1925: 6, pl. 33, fig. 8; Kantor and Sysoev, 2006: 161, pl. 75 C; *Reticubuccinum acutispiratum*: Higo *et al.*, 1999: 245; Min, 2004: 235, fig. 639].

Type locality: East Sea.

Distribution: Pacific, mainly Asian, boreal species; I, II, IV, VI; single records only.

Habitat: 50-545 m; mud and muddy sand.

164. *Buccinum bayani bayani* (Jousseaume, 1883) [*Tritonium bayani* Jousseaume, 1883: 191-192, pl. X, fig. 5; *Buccinum bayani*: Higo *et al.*, 1999: 243; Min, 2004: 233, fig. 630; Kantor and Sysoev, 2006: 162, pl. 78 C-D; *Buccinum aniwanum*: Min, 2004: 233, fig. 629].

Type locality: Korean Peninsula, East Sea.

Distribution: Asian low-boreal subspecies; I, II, III, IV, V; abundant commercial species.

Habitat: 25-510 m; mainly sand and muddy sand, pebbles (less frequently).

165. *Buccinum ciliatum ciliatum* (Fabricius, 1780) [*Tritonium ciliatum* Fabricius, 1780:401-402; *Buccinum ciliatum*: Higo *et al.*, 1999: 244; *Buccinum ciliatum ciliatum*: Kantor and Sysoev, 2006: 163, pl. 76 F-G].

Type locality: Greenland.

Distribution: Boreal-arctic subspecies; II, IV, VII; rare.

Habitat: 45-380 m; sand and muddy sand.

166. *Buccinum japonicum* A. Adams, 1861 [*Buccinum japonicum* A. Adams 1861:135; Higo *et al.*, 1999: 240; Kantor and Sysoev, 2006: 167-168, pl. 77 H].

Type locality: Hokkaido, East Sea.

Distribution: Asian low-boreal species; II; single record only.

Habitat: Unknown.

167. *Buccinum middendorffi* Verkrüzen, 1882 [*Buccinum middendorffi* Verkrüzen, 1882: 213-214; Higo *et al.*, 1999: 241; Min, 2004: 231, fig. 624; Kantor and Sysoev, 2006: 169, pl. 81 I-J].

Type locality: East coast of Sakhalin.

Distribution: Asian low-boreal species; I-VIII; common.

Habitat: 4-62 m; mainly sand and muddy sand, stones (less frequently).

168. *Buccinum mirandum mirandum* E.A. Smith,

1875

[*Buccinum mirandum mirandum* Smith, 1875: 107-108; *Buccinum polaris mirandum*: Higo *et al.*, 1999: 242; Kantor and Sysoev, 2006: 169, pl. 81 G].

Type locality: Eastern Hokkaido (Japan).

Distribution: Asian boreal subspecies; I-VIII; common. Habitat: Intertidal-67 m; sand, muddy sand, stones, rock.

169. *Buccinum ochotense ochotense* (Middendorff, 1848)

[*Tritonium (Buccinum) ochotense* Middendorff, 1848: 235; *Buccinum ochotense ochotense*: Higo *et al.*, 1999: 242 (in part, non *B. ochotensis timessa*); Kantor and Sysoev, 2006: 170, pl. 83 A-B].

Type locality: Sea of Okhotsk.

Distribution: Asian, mainly high-boreal, subspecies; III; single record only.

Habitat: 20-25 m; pebbles.

170. *Buccinum ochotense timessa* Bartsch in Golikov, 1980

[*Buccinum ochotense timessum* Golikov, 1980: 190-191, 257 (2), 258 B, 259 (2), 260 (2), 261, pl. 4 (2a-2d); Kantor and Sysoev, 2006: 171, pl. 83 C; *Buccinum ochotense ochotense*: Higo *et al.*, 1999: 242 (in part); Min, 2004: 231, fig. 625].

Type locality: Southern Sakhalin, East Sea.

Distribution: Asian low-boreal subspecies; I-VIII; common.

Habitat: 3-165 m; mainly rock and stones, sand and muddy sand (less frequently).

171. *Buccinum opisoplectum* Dall, 1907

[*Buccinum opisoplectum* Dall, 1907: 142; Higo *et al.*, 1999: 240; Min, 2004: 231, fig. 622; Kantor and Sysoev, 2006: 171, pl. 82 C-D].

Type locality: East Sea.

Distribution: Asian low-boreal species; I; single record only.

Habitat: 54 m; substrate unknown.

172. *Buccinum percrassum* Dall, 1883

[*Buccinum polare* var. *percrassa* Dall: Kobelt, 1883:

86-87, pl. 91, fig. 5; *Buccinum chishimatum chishimanum*: Higo *et al.*, 1999: 242; *Buccinum percrassum*: Kantor and Sysoev, 2006: 171-172, pl. 82 E-F].

Type locality: North of Bering Strait.

Distribution: Asian boreal species; VII, VIII; rare.

Habitat: 2-13 m; rock, boulders.

173. *Buccinum polium polium* Dall, 1907

[*Buccinum polium* Dall, 1907: 145; *Buccinum percrassum polium*: Higo *et al.*, 1999: 243; *Buccinum polium polium*: Kantor and Sysoev, 2006: 172, pl. 81 E].

Type locality: Aniwa Bay, Sakhalin (Sea of Okhotsk).

Distribution: Asian boreal subspecies; VII; single record only.

Habitat: 95-120 m; muddy sand.

174. *Buccinum rossellinum* Dall, 1919

[*Buccinum rossellinum* Dall, 1919b: 327; Kantor and Sysoev, 2006: 173, pl. 81 K].

Type locality: Chirikoff Island, Alaska.

Distribution: Asian, mainly high-boreal, species; I; single record only.

Habitat: 355 m; substrate unknown.

175. *Buccinum rossicum* Dall, 1907

[*Buccinum rossicum* Dall, 1907: 150, 151; Higo *et al.*, 1999: 244; Min, 2004: 235, fig. 635; Kantor and Sysoev, 2006: 173, pl. 84 A-B]

Type locality: Aniwa Bay, Sakhalin (Sea of Okhotsk), and Tsugaru Strait, northern Japan.

Distribution: Asian boreal species; I, II, III, IV, V, abundant commercial species.

Habitat: 57-710 m; mainly mud and muddy sand, less frequently mixed with pebbles.

176. *Buccinum sakhalinense* Dall, 1907

[*Buccinum sakhalinense* Dall, 1907: 148; Higo *et al.*, 1999: 241; Kantor and Sysoev, 2006: 173-174, pl. 82 J]

Type locality: Aniwa Bay, Sakhalin (Sea of Okhotsk).

Distribution: Asian low-boreal species; I, II, V, VI, VII, VIII; common.

Habitat: 2-100 m; mainly mud and muddy sand, less frequently mixed with pebbles and stones.

177. *Buccinum striatissimum* Sowerby, 1899

[*Buccinum striatissimum* Sowerby, 1899 : 370-371, fig. 1; Higo *et al.*, 1999: 243; Min, 2004: 235, fig. 633; Kantor and Sysoev, 2006: 175, pl. 84 J]

Type locality: Tango Peninsula, Honshu, East Sea.

Distribution: Asian low-boreal species; I; single record only.

Habitat: 668 m; muddy pebbles.

178. *Buccinum tenuissimum* Kuroda in Teramachi, 1933

[*Buccinum tenuissimum* Teramachi, 1933: 361, 364, fig. 4, 6; Higo *et al.*, 1999: 243; Min, 2004: 235, fig. 634; Kantor and Sysoev, 2006: 175, pl. 84 C]

Type locality: Toyama Bay, eastern Noto Peninsula, East Sea.

Distribution: Asian low-boreal species; I; rare.

Habitat: 859-1500 m; muddy pebbles and clay.

179. *Buccinum tenuisulcatum* Golikov and Gulbin, 1977

[Golikov and Gulbin, 1977: 214-215, fig. 12; Kantor and Sysoev, 2006: 175-176, pl. 86 A-B].

Type locality: East of Paramushir Island (North Kurile Islands).

Distribution: Asian boreal species; II; rare.

Habitat: 100-400 m; mud and muddy sand, mixed with pebbles.

180. *Buccinum verkruzeni* Kobelt, 1882

[*Buccinum verkruzeni* Kobelt 1882 : 230-231; Higo *et al.*, 1999: 241; Min, 2004: 231, fig. 623; Kantor and Sysoev, 2006: 176, pl. 87 A-B]

Type locality: Southern Sakhalin.

Distribution: Asian low-boreal species; I, II, VI, VIII; abundant commercial species.

Habitat: 1-80 m; mainly muddy sand, less frequently mixed with pebbles and stones.

Genus *Plicibuccinum* Golikov and Gulbin, 1977

Type species: *Plicibuccinum plicatum* Golikov and

Gulbin, 1977.

181. *Plicibuccinum plicatum* Golikov and Gulbin, 1977

[*Plicibuccinum plicatum* Golikov and Gulbin, 1977: 196-198, fig. 7, 17 (5); *Plicibuccinum ochotensis declivis*: Higo *et al.*, 1999: 242; *Plicibuccinum declivis*: Kantor and Sysoev, 2006: 177, pl. 87 C].

Type locality: Titova Cape, southern Primorye Region (East Sea).

Distribution: Asian low-boreal species; I, II, IV, V, VIII; uncommon.

Habitat: 30-62 m; muddy sand with pebbles and stones.

Genus *Thysanobuccinum* Golikov and Gulbin, 1977
in Golikov, 1980

Type species: *Thysanobuccinum tunicatum* Golikov and Gulbin, 1977.

182. *Thysanobuccinum pilosum* Golikov and Gulbin, 1977

[*Thysanobuccinum pilosum* Golikov and Gulbin, 1977: 210-211, fig. 11; Higo *et al.*, 1999: 244; *Thysanobuccinum pilosum*: Kantor and Sysoev, 2006: 177, pl. 86 F].

Type locality: Moneron Island (East Sea).

Distribution: Asian boreal subspecies; VIII; rare.

Habitat: 65-70 m; shells.

Genus *Volutharpa* Fisher, 1856

Type species: *Volutharpa deshayesiana* Fischer, 1956 (= *Bulla ampullacea* Middendorff, 1848)

183. *Volutharpa ampullacea* (Middendorff, 1848)

[*Bullia ampullacea* Middendorff 1848: 245; *Volutharpa ampullacea ampullacea*, *V. ampullacea morchiana*, *V. ampullacea limnaeformis*, *V. ampullacea perryi*: Higo *et al.*, 1999: 245; Min, 2004: 237, fig. 640-643; *Volutharpa ampullacea*: Kantor and Sysoev, 2006: 177, pl. 86 G].

Type locality: Shantar Islands (Sea of Okhotsk).

Distribution: Pacific boreal species; I, II, VI, VII, VIII; uncommon.

Habitat: Intertidal-70 m; stones with shells, less frequently mixed with pebbles and mud.

Subfamily Colinae Gray, 1857

Note. The systematics of this subfamily is under revision. In this review I follow the nomenclature of Kosyan (2007).

Genus *Aulacofusus* Dall, 1918

Type species: *Fusus spitzbergensis* Reeve, 1855 (= *Fusus brevicauda* Deshayes, 1832).

184. *Aulacofusus brevicauda kurilensis* Golikov and Gulbin, 1977

[*Aulacofusus schantaricus kurilensis* Golikov and Gulbin, 1977: 183, fig. 4; *Colus (Colus) schantaricus kurilensis*: Higo *et al.*, 1999: 229; *Aulacofusus brevicauda kurilensis*: 2006: 179, pl. 88 G-H].

Type locality: Paramushir Island, Kurile Islands.

Distribution: Pacific boreal subspecies; I, II, III, V, VI; uncommon.

Habitat: 15-130 m; stones with shells, less frequently mixed with pebbles and sand.

185. *Aulacofusus herendeenii* (Dall, 1899)

[*Sipho herendenii* Dall, 1899: 543; *Colus (Colus) nobilis*: Higo *et al.*, 1999: 229; *Aulacofusus herendeenii*: Kantor and Sysoev, 2006: 180, pl. 89 B].

Type locality: Pribiloff Islands (Bering Sea).

Distribution: Pacific boreal species; VIII; single record only.

Habitat: 150 m; sandy mud with shells.

Genus *Colus* Röding, 1799

Type species: *Murex islandicus* Mohr, 1786.

186. *Colus kujianus* Tiba, 1973

[*Colus kujiana* Tiba, 1973: 65-68, pl. 6, fig. 6-8; *Colus (Colus) esychus kujiana*: Higo *et al.*, 1999: 228; *Colus kujianus*: Kantor and Sysoev, 2006: 183, pl. 91 A-B].

Type locality: Off Kuji, northeastern Honshu (Japan).

Distribution: Asian low-boreal species; II; single record only.

Habitat: 170 m; mud.

187. *Colus minor* (Dall, 1925)

[*Volutopsius minor* Dall, 1925: 30-31, pl. 32, fig. 3; *Plicifusus (Helicofusus) minor*: Higo *et al.*, 1999: 321; *Aulacofusus minor*: Kantor and Sysoev, 2006: pl. 89 A].

Type locality: Aniwa Bay, Sakhalin (Sea of Okhotsk).

Distribution: Asian low-boreal species. [This species is absent in collections of the Zoological Institute of the Russian Academy of Sciences and Institute of Marine Biology of the Far-Eastern Branch of the Russian Academy of Sciences. According to Higo *et al.*, (1999), this species was reported from "Sakhalin, Primorye region (Japan Sea coast of Russia) "].

Genus *Neptunea* Bolten in Röding, 1798

Type species: *Murex antiquus* Linnaeus, 1758.

188. *Neptunea arthritica* (Valenciennes, 1858)

[*Fusus arthriticus* Valenciennes, 1858: 144; *Neptunea* (*Barbitonia*) *arthritica*: Higo *et al.*, 1999: 233; Min, 2004: 225, fig. 600; *Neptunea arthritica*: Kantor and Sysoev, 2006: 188-189, pl. 94 B-C].

Type locality: Sangar Strait (Japan).

Distribution: Asian low-boreal species; I, II, IV, V, VI, VII, VIII; common.

Habitat: Intertidal-400 m; mainly rock and stones, muddy sand (less frequently).

189. *Neptunea bulbacea* (Valenciennes, 1858)

[*Fusus arthriticus* Valenciennes, 1858: 144; *Neptunea bulbacea*: Higo *et al.*, 1999: 232 (in part); Kantor and Sysoev, 2006: 189, pl. 94 F-G].

Type locality: Tatar Strait (East Sea).

Distribution: Asian low-boreal species; I, II, IV, V, VI, VII, VIII; common.

Habitat: Intertidal-510 m; mainly rock and stones, muddy sand (less frequently).

190. *Neptunea constricta* (Dall, 1907)

[*Chrysodomus insularis* var. *constrictus* Dall, 1907: 153-154; *Neptunea constricta*: Higo *et al.*, 1999: 231-232; Min, 2004: 223, fig. 594; Kantor and Sysoev, 2006: 190, pl. 95 F].

Type locality: East Sea, off Korea.

Distribution: Asian low-boreal species; I, II, IV, V, VI, VII; common, sometimes abundant commercial species.

Habitat: 35-510 m; mainly muddy sand, stones (less frequently).

191. *Neptunea lyrata lyrata* (Gmelin, 1791)

[*Murex lyratus* Gmelin, 1791: 3531; *Neptunea lyrata*: Higo *et al.*, 1999: 232; Min, 2004: 225, fig. 598; *Neptunea lyrata lyrata*: Kantor and Sysoev, 2006: 193, pl. 97 C].

Type locality: King George Sound, northwestern USA. Distribution: Pacific boreal species; I, II, IV, V, VI, VII; common, sometimes abundant commercial species.

Habitat: 31-234 m; mainly muddy sand, stones (less frequently).

192. *Neptunea polycostata* Scarlato in Galkin and Scarlato, 1955

[*Neptunea polycostata* Galkin and Scarlato, 1955: 178, pl. 46, fig. 10; Kantor and Sysoev, 2006: 193, pl. 97 E-F; *Neptunea polycostata polycostata*: Higo *et al.*, 1999: 231; Min, 2004: 221 fig. 591].

Type locality: Tatar Strait (East Sea).

Distribution: Asian low-boreal species; I, II, III, IV, V, VI, VIII; common.

Habitat: 14-95 m; mainly muddy sand, stones (less frequently).

193. *Neptunea rugosa* Golikov, 1962

[*Neptunea rugosa* Golikov, 1962: 8, fig. 11-13; Kantor and Sysoev, 2006: 194, pl. 98 F; *Neptunea bulbacea*: Higo *et al.*, 1999: 231-232 (in part)].

Type locality: Tatar Strait (East Sea).

Distribution: Asian low-boreal species; III, V, VI, VII, VIII; uncommon.

Habitat: 10-67 m; mainly muddy sand, pebbles (less frequently).

Genus *Pararetifusus* Kosuge, 1967

Type species: *Phymorhynchus tenuis* Okutani, 1966

194. *Pararetifusus kantori* Kosyan, 2006

[Kosyan, 2006: 6-12, figs. 1, 3-5].

Type locality: Primoriye Region, northwestern East Sea.

Distribution: Asian low-boreal species; II; single record only.

Habitat: 1400 m; muddy clay with pebbles.

Genus *Plicifusus* Dall, 1902

Type species: *Fusus kroyeri* Møller, 1842.

195. ***Plicifusus croceus*** (Dall, 1907)

[*Tritonofusus croceus* Dall, 1907: 161; *Plicifusus croceus*: Higo *et al.*, 1999: 230; Min, 2004: 221, fig. 585; Kantor and Sysoev, 2006: 195-196, pl. 99 C].

Type locality: South coast of Hokkaido, East Sea.

Distribution: Asian low-boreal species; I, II, III, V; common.

Habitat: 25–1400 m; mainly muddy sand, muddy stones (less frequently).

196. ***Plicifusus kroyeri*** (Møller, 1842)

[*Fusus kroyeri* Møller, 1842: 88; *Plicifusus kroyeri*: Higo *et al.*, 1999: 230; Kantor and Sysoev, 2006: 197, pl. 100 A-B].

Type locality: Western Greenland.

Distribution: Boreal-arctic species; I; single record only.

Habitat: 146 m; substrate unknown.

197. ***Plicifusus plicatus*** (A. Adams, 1863)

[*Sipho plicatus* Adams, 1863: 107; *Plicifusus plicatus*: Kantor and Sysoev, 2006: 198, pl. 101 A-C].

Type locality: Aniwa Bay, Sakhalin Island (Sea of Okhotsk).

Distribution: Asian low-boreal species; I, II, III, IV, V, VI, VIII; common.

Habitat: 10–146 m; mainly rock and stones, muddy sand with pebbles and gravel (less frequently).

198. ***Plicifusus rhysus*** (Dall, 1907)

[*Tritonofusus rhysus* Dall, 1907: 160; *Plicifusus rhysus*: Higo *et al.*, 1999: 230; *Helicofusus rhysus*: Kantor and Sysoev, 2006: 184-185, pl. 91 I].

Type locality: Aniwa Bay, Sakhalin Island (Sea of Okhotsk).

Distribution: Pacific boreal species; IV; single record only.

Habitat: 74 m; mud.

199. ***Plicifusus scissuratus*** (Dall, 1918)

[*Plicifusus (Retifusus) scissuratus* Dall, 1918: 226; *Plicifusus (Plicifusus) scissuratus*: Higo *et al.*, 1999: 230; Min, 2004: 221, fig. 588; *Retifusus scissuratus*:

Kantor and Sysoev, 2006: 200, pl. 102 A].

Type locality: Nemuro, Hokkaido Island (Japan).

Distribution: Asian low-boreal species; II, VII; rare.

Habitat: 63–84 m; muddy sand.

Genus ***Retifusus*** Dall, 1916

Type species: *Tritonium jessoensis* Schrenck, 1863

200. ***Retifusus brunneus*** (Dall, 1877)

[*Chrysodomus brunneus* Dall, 1877: 1; *Plicifusus (Retifusus) brunneus*: Higo *et al.*, 1999: 230; *Retifusus brunneus*: Kantor and Sysoev, 2006: 199, pl. 101 K].

Type locality: Nunivak Island, Bering Sea.

Distribution: Pacific boreal species; I, II; rare.

Habitat: 20–62 m; muddy sand.

Note. Kosyan (2007) considers *Retifusus brunneus* (Dall, 1877), *Fusus (Sipho?) manchuricus* E. A. Smith, 1875 and *Mohnia okhotskana* Tiba, 1981 as synonyms of *Retifusus jessoensis* (Schrenck, 1863).

201. ***Retifusus frielei*** (Dall, 1891)

[*Mohnia frielei* Dall, 1891: 186; *Retimohnia frielei*: Higo *et al.*, 1999: 228; Min, 2004: 219, fig. 583; Kantor and Sysoev, 2006: 201, pl. 102 I-J].

Type locality: Queen Charlotte Island, British Columbia, Canada.

Distribution: Pacific boreal species; II; rare.

Habitat: 89–1320 m; sand with stones and mud.

202. ***Retifusus laticingulatus*** Golikov and Gulbin, 1977

[*Retifusus laticingulatus* Golikov and Gulbin, 1977: 188-189, fig. 6; *Plicifusus (Retifusus) laticingulatus*: Higo *et al.*, 1999: 231; Kantor and Sysoev, 2006: 199, pl. 101 D-D'].

Type locality: Shikotan Island, southern Kurile Islands.

Distribution: Asian low-boreal species; I; rare.

Habitat: 46–65 m; sand.

203. ***Retifusus roseus*** (Dall, 1877)

[*Chrysodomus roseus* Dall, 1877: 2; *Aulacofusus roseus*: Kantor and Sysoev, 2006: 181, pl. 89 I-J; *Plicifusus parvus*: Kantor and Sysoev, 2006: 197-198, pl. 100 J-K; *Plicifusus saginatus*: Kantor and Sysoev,

2006: 198, pl. 100 H-I; *Retifusus semiplicatus*: Kantor and Sysoev, 2006: 198, pl. 102 A].

Type locality: Bering Strait.

Distribution: Boreal-arctic species; I, II, VI, VII, VIII; common.

Habitat: 51-900 m; mainly muddy sand, muddy stones (less frequently).

Subfamily Volutopsinae Habe and Sato, 1973

Genus *Lussivolutopsius* Kantor, 1983

Type species: *Lussivolutopsius hydractiniferus* Kantor, 1983

204. *Lussivolutopsius emphaticus* (Dall, 1907)

[*Volutopsius middendorffii* var. *emphaticus* Dall, 1907: 163; *Lussivolutopsius emphaticus*: Higo *et al.*, 1999: 225; Min, 2004: 219, fig. 578; Kantor and Sysoev, 2006: 203-204, pl. 104 A; *Volutopsius middendorffii middendorffii*: Higo *et al.*, 1999: 224; Min, 2004: 219, fig. 577].

Type locality: East Sea.

Distribution: Asian boreal species; I, II, III, VIII; common.

Habitat: 100-663 m; muddy sand, pebbles, stones.

205 *Lussivolutopsius marinae* Kantor, 1984

[Kantor, 1984: 1620, figs. 1; 2 (B); 4; 5 (2); Kantor and Sysoev, 2006: 204, pl. 104 G]

Type locality: Northern Sea of Okhotsk.

Distribution: Asian boreal species; III; rare.

Habitat: 230-411 m; muddy stones.

Genus *Volutopsius* Mörch, 1857

Type species: *Fusus largillierti* Pelit de la Saussaye, 1852 (= *Strombus norwegicus* Gmelin, 1790)

206. *Volutopsius castaneus* Mörch, 1857

[*Fusus (Volutopsius) castaneus* Mörch, 1857: 341; *Volutopsius castaneus*: Higo *et al.*, 1999: 244; Kantor and Sysoev, 2006: 206, pl. 106 A].

Type locality: Sitka Island, Alaska.

Distribution: Pacific boreal species; I, II, VIII; rare.

Habitat: 100-500 m; shells with stones.

Family Columbelloidea Swainson, 1840

Genus *Astyris* H. and A. Adams, 1853

Type species: *Buccinum (Astyris) rosaceum* Gould, 1839

207. *Astyris amiantis* (Dall, 1919)

[*Columbella amiantis* Dall, 1919b: 331; *Astyris amiantis*: Higo *et al.*, 1999: 252; Kantor and Sysoev, 2006: 207-208, pl. 106 H].

Type locality: Kiska Harbour, Aleutian Islands (Alaska).

Distribution: Mainly Asian boreal species; I, II, III, IV, VI, VIII; rare.

Habitat: 30-850 m; shells with sand and stones.

Genus *Mitrella* Risso, 1826

Type species: *Mitrella flaminea* Risso, 1826 (= *Murex scriptus* Linnaeus, 1758)

208. *Mitrella tenuis* Gaskoin, 1851

[*Columbella tenuis* Gaskoin, 1851: 2; *Mitrella tenuis tenuis*: Higo *et al.*, 1999: 24; Min, 2004: 239, fig. 649; *Mitrella bicincta*: Min, 2004: 239, fig. 648; *Mitrella burchardi*: Kantor and Sysoev, 2006: 208-209, pl. 107 A].

Type locality: None designated

Distribution: Asian low-boreal species; I-VIII; abundant.

Habitat: Intertidal-35 m; mainly rock and stones.

Family Nassariidae Iredale, 1916

Genus *Nassarius* Dumeril, 1806

Type species: *Buccinum arcularia* Linnaeus, 1758.

209. *Nassarius fraterculus* (Dunker, 1860)

[*Nassa fratercula* Dunker, 1860: 230; *Hima fratercula fratercula*: Higo *et al.*, 1999: 257; Min, 2004: 247, fig. 677; *Hima fratercula hiradoensis*: Higo *et al.*, 1999: 257-258; Min, 2004: 247, fig. 679; *Hima fratercula hypolia*: Min, 2004: 247, fig. 678; *Nassarius fraterculus*: Kantor and Sysoev, 2006: 210, pl. 107 B].

Type locality: Dejima Island, Nagasaki City harbour, western Kyushu (Japan).

Distribution: Asian subtropical-low-boreal species; I, VII, VIII; common in shallow bays.

Habitat: Intertidal-5 m; rock and stones, pebbles and sand.

210. *Nassarius multigranosus* (Dunker, 1847)

[*Nassa multigranosa* Dunker, 1847: 61; *Hima*

multigranosa: Higo *et al.*, 1999: 258; Min, 2004: 247, fig. 680; *Nassarius multigranosus*: Kantor and Sysoev, 2006: 210: pl. 107 C].

Type locality: Hirado Island, western Kyushu (Japan).
Distribution: Asian subtropical-low-boreal species; I; rare.

Habitat: Intertidal-12 m; rock and stones, pebbles and muddy sand.

Superfamily Cancellarioidea Forbes and Hanley, 1851

Family Admetidae Troschel, 1869

Genus *Admete* Krøyer in Møller, 1842

Type species: *Admete crispa* Møller, 1842, 1842 [= *Tritonium viridulum* Fabricius, 1780].

211. *Admete laevior* Leche, 1878

[*Admete viridula* var. *laevior* Leche, 1878: 48; *Admete middendorffiana* Dall 1902: 516, pl. 38, fig 6; *Admete laevior*: Kantor and Sysoev, 2006: 211-212, pl. 108 D-E].

Type locality: Bering Sea.

Distribution: Boreal-arctic species; I; rare.

Habitat: 45-62 muddy sand.

212. *Admete viridula* (Fabricius, 1780)

[*Tritonium viridula* Fabricius, 1780: 402; *Admete couthouyi*: Higo *et al.*, 1999: 296; Min, 2004: 259, fig. 721; *Admete viridula*: Kantor and Sysoev, 2006: 212, pl. 108 F-G].

Type locality: Greenland.

Distribution: Boreal-arctic species; I, II, IV, V, VII; common.

Habitat: 33-300 m; sand, muddy sand, and muddy pebbles.

213. *Admete sp.*

[*Admete unalaskensis* (?) : Gulbin, 2004: 6].

Distribution: I, II; rare.

Habitat: 45-610 m; muddy sand.

Superfamily Muricoidea Rafinesque, 1815

Family Muricidae Rafinesque, 1815

Subfamily Ocenebrinae Cossmann, 1903

Genus *Ceratostoma* Hermannsen, 1846

Type species: *Purpura nuttalli* Conrad, 1837.

214. *Ceratostoma burnettii* (Adams and Reeve, 1848)

[*Murex burnettii* Adams, Reeve, 1848: 38, pl. 8, fig. 4a, b.

Ceratostoma burnettii: Higo *et al.*, 1999: 206; Min, 2004: 211, fig. 551; Kantor and Sysoev, 2006: 139, pl. 62 A].

Type locality: Korea.

Distribution: Asian subtropical-low-boreal species; I; VIII; rare.

Habitat: Intertidal-15 m; rock, stones and mud.

Genus *Ocenebra* Gray, 1847

Type species: *Murex erinaceus* Linnaeus, 1758

215. *Ocenebra inornata* (Récluz, 1851)

[*Murex inornatus* Récluz, 1851: 207-209, pl. 6, fig. 8; *Ceratostoma inornatum*: Higo *et al.*, 1999: 206 (in part, non *O. lumaria*); Min, 2004: 211, fig. 554; *Murex endermonis*: Min, 2004: 211, fig. 556; *Ocenebra inornata*: Kantor and Sysoev, 2006: 139-140, pl. 62 B].

Type locality: Korea.

Distribution: Asian subtropical-low-boreal species; I, VIII (two empty shells); rare.

Habitat: Intertidal-15 m; rock, stones, muddy sand (less frequently).

216. *Ocenebra lumaria* (Yokoyama, 1926)

[*Ocenebra lumaria* Yokoyama, 1926: 270, pl. 32, fig. 21; Min, 2004: 211, fig. 555; *Ceratostoma inornatum*: Higo *et al.*, 1999: 206 (in part, *O. lumaria*); *Ocenebra inornata*: Kantor and Sysoev, 2006: 140, pl. 62 C].

Type locality: Sado Island (East Sea).

Distribution: Asian subtropical-low-boreal species; I, II, VI, VII; rare.

Habitat: Intertidal-15 m; rock, stones, muddy sand (less frequently).

Subfamily Trophoninae Cossmann, 1903

Subfamily Trophoninae Cossmann

Genus *Boreotrophon* P. Fischer, 1884

Type species: *Murex clathratus* Linnaeus, 1767.

217. *Boreotrophon alaskanus alaskanus* Dall, 1902

[*Boreotrophon alaskanus* Dall, 1902: 546-546; Higo *et*

al., 1999: 204; *Boreotrophon alaskanus alaskanus*: Kantor and Sysoev, 2006: 141-142, pl. 63 H-I].
Type locality: Unalaska, Bering Sea.
Distribution: Pacific boreal species; II, III, V, VI; rare.
Habitat: 40-400 m; mud.

218. *Boreotrophon beringi* Dall, 1902
[*Boreotrophon beringi*: Dall, 1902: 544; Higo *et al.*, 1999: 204; Kantor and Sysoev, 2006: 142, pl. 63 K.
Type locality: Nunivak Island, Bering Sea
Distribution: Pacific boreal species; I, II, IV, VII; rare.
Habitat: 13-200 m; rock and sand with stones.

219. *Boreotrophon candelabrum* (Reeve, 1848)
[*Fusus candelabrum* Reeve, 1848: pl. 19, fig. 79; *Boreotrophon candelabrum*: Higo *et al.*, 1999: 203-202; Min, 2004: 208, fig. 542; Kantor and Sysoev, 2006: 142, pl. 64 A-B].
Type locality: None designated.
Distribution: Asian low-boreal species; I, II, IV, V, VII, VIII; common.
Habitat: Intertidal-62 m; rock, stones and pebbles with shells.

220. *Boreotrophon cepula* (Sowerby, 1880)
[*Trophon cepula* Sowerby, 1880: 61, pl. 404, fig. 14; *Boreotrophon cepula* Higo *et al.*, 1999: 215; Kantor and Sysoev, 2006: 142-143, pl. 63 F-G].
Type locality: Icy Cape (Alaska).
Distribution: Pacific boreal species; I, II, III, IV, VI; common.
Habitat: 40-160 m; muddy sand, pebbles, stones.

221. *Boreotrophon ithitonus* (Dall, 1919)
[*Neptunea ithitoma* Dall, 1919b: 337-338; *Boreotrophon ithitonus*: Higo *et al.*, 1999: 204; Kantor and Sysoev, 2006: 144, pl. 64 G].
Type locality: Taiya Inlet, Alaska.
Distribution: Pacific boreal species; II; single record only.
Habitat: 280-320 m; substrate unknown.

222. *Boreotrophon pacificus* Dall, 1902
[*Boreotrophon pacificus* Dall, 1902: 544; Kantor and

Sysoev, 2006: 144, pl. 64 C-D; *Boreotrophon pacificus pacificus*: Higo *et al.*, 1999: 204; Min, 2004: 209, fig. 546; *Boreotrophon pacificus aomoriensis*: Higo *et al.*, 1999: 204; Min, 2004: 209, fig. 547].
Type locality: Sitka Harbour, Alaska.
Distribution: Pacific boreal species; II, VIII; rare.
Habitat: 50-100 m; pebbles with shells.

223. *Boreotrophon truncatus* (Strøm, 1768)
[*Buccinum truncatum* Ström, 1768: 369, pl. 16; *Boreotrophon truncatus*: Higo *et al.*, 1999: 204; Kantor and Sysoev, 2006: 145 pl. 65 K].
Type locality: Norway.
Distribution: Boreal-arctic species; VIII; rare.
Habitat: 100-120 m; pebbles with shells.

Genus *Nodulotrophon* Habe and Ito, 1965
Type species: *Trophon dalli* Kobelt, 1878 (= *Trophon coronatus* H. and A.Adams, 1864).

224. *Nodulotrophon coronatus* (H. and A.Adams, 1864)
[*Trophon coronatus* H. and A.Adams, 1864: 429-430; *Nodulotrophon coronatus*: Higo *et al.*, 1999: 205; Kantor and Sysoev, 2006: 145-146, pl. 65 F-G].
Type locality: New Zealand (erroneous locality; Cuming collection)
Distribution: Pacific boreal species; III, V, VIII; rare.
Habitat: 94-280 m; muddy sand.

Genus *Scabrotrophon* McLean, 1996
Type species: *Trophon maltzani* Kobelt, 1878.
225. *Scabrotrophon scitulus* (Dall, 1891)
[*Trophonopsis (Boreotrophon) scitulus* Dall, 1891: 188; *Nipponotrophon scitulus*: Higo *et al.*, 1999: 204; Min, 2004: 209-211, fig. 549; *Scabrotrophon scitulus*: Kantor and Sysoev, 2006: 147, pl. 66 G].
Type locality: Nunivak Island, Bering Sea.
Distribution: Asian boreal species; I, II, III, VII; rare.
Habitat: 58-300 m; mainly mud and muddy sand.

Genus *Trophonopsis* Bucquoy, Dautzenberget Dollfus, 1882

Type species: *Murex muricatus*: Montagu, 1803.
226. *Trophonopsis kamchatkana* (Dall, 1902)

[*Boreptrophon (Trophonopsis) kamchatkanus* Dall, 1902: 541; *Trophonopsis kamchatkanus*: Higo *et al.*, 1999: 203; Kantor and Sysoev, 2006: 148, pl. 67, H-I].
Type locality: South-eastern Kamchatka.
Distribution: Asian boreal species; I, II, III, V, VI; rare.
Habitat: 45-200 m; muddy sand.

227. *Trophonopsis nodulosus* Golikov in Golikov and Scarlato, 1985
[*Trophonopsis nodulosus* Golikov and Scarlato, 1985: 425, fig. 9; Higo *et al.*, 1999: 203; Kantor and Sysoev, 2006: 148, pl. 67 G].
Type locality: South-eastern Sakhalin.
Distribution: Asian low-boreal species; III, V; rare.
Habitat: 57-64 m; muddy sand.

228. *Trophonopsis tegularis* Golikov and Gulbin 1977
[*Trophonopsis tegularis* Golikov and Gulbin 1977: 228-229, figs. 15; 8, 17; Higo *et al.*, 1999: 203; Kantor and Sysoev, 2006: 148: pl. 67 C].
Type locality: Shikotan Island (Kurile Islands).
Distribution: Asian low-boreal species; II, III, IV, VIII; rare.
Habitat: 30-100 m; pebbles with shells, rock (less frequently).

Subfamily Rapaninae Gray, 1853

Genus *Nucella* Bolten in Röding, 1798

Type species: *Buccinum filosum* Gmelin, 1791 (= *Buccinum lapillus* Linnaeus, 1758).

229. *Nucella elongata* Golikov and Kussakin, 1974
[*Nucella elongata* Golikov and Kussakin, 1974: 295; *Nucella lamellosa hormica*: Higo *et al.*, 1999: 214; Kantor and Sysoev, 2006: 150, pl. 68 H; *Nucella heyseana*: Min, 2004: 215, fig. 569.

Type locality: Ismena Bay, Kunashir Island (Kurile Islands).

Distribution: Asian low-boreal species; I, II, IV, V, VII, VIII; common.

Habitat: Intertidal-10 m; mainly rock and boulders.

230. *Nucella freycineti* (Deshayes, 1841)

[*Purpura freycinetii* Deshayes, 1839: 360; *Nucella*

freycinetii freycinetii: Higo *et al.*, 1999: 214; Kantor and Sysoev, 2006: 149, pl. 68 A-C].

Type locality: Kamchatka Peninsula.

Distribution: Pacific boreal species; V, VI, VII, VIII; common

Habitat: Intertidal-10 m; mainly rock, boulders, stones and sand.

231. *Nucella heyseana* (Dunker, 1882)

[*Purpura heyseana* Dunker, 1882: 40, tab. 13, fig. 10; *Nucella heyseana*: Higo *et al.*, 1999: 214; Kantor and Sysoev, 2006: 149-150, pl. 68 D; *Nucella freycinetii alabaster*: Higo *et al.*, 1999: 214; Kantor and Sysoev, 2006: 149, pl. 68 E; *Nucella freycinetii freycinetii*: Min, 2004: 215, fig. 570; *Nucella lamellosa hormica*: Min, 2004: 217, fig. 571].

Type locality: East Sea.

Distribution: Asian low-boreal species; I-VIII; common..

Habitat: Intertidal-100 m; mainly rock, boulders, stones and sand.

Genus *Rapana* Schumacher, 1817

Type species: *Buccinum bezoar* Linnaeus, 1767

232. *Rapana venosa* (Valenciennes, 1846)

[*Purpura venosa* Valenciennes, 1846: 22; *Rapana venosa venosa*: Higo *et al.*, 1999: 215; Min, 2004: 217, fig. 572; *Rapana venosa*: Kantor and Sysoev, 2006: 150-151, pl.68 J].

Type locality: Not designated.

Distribution: Asian subtropical-low-boreal species; I; rare.

Habitat: 2-10 m; sand.

Superfamily Olivoidea Latreille, 1825

Family Olivellidae Troschel, 1869

Genus *Olivella* Swainson, 1831

Type species: *Oliva purpurata* Swainson, 1831 (= *Voluta dama* Mawe in Wood, 1825).

233. *Olivella borealis* Golikov in Golikov and Scarlato, 1967

[*Olivella borealis* Golikov and Scarlato, 1967: 62-63, fig 41; Kantor and Sysoev, 2006: 152 pl. 69 B].

Type locality: Possiet Bay (Peter the Great Bay, East

Sea).

Distribution: Asian low-boreal species; I, II, V; common.

Habitat: 0-23 m; mainly sand.

Superfamily Conoidea Fleming, 1822

Family Conidae Fleming, 1822

Subfamily Clathurellinae H. and A.Adams, 1858

Genus *Ophiidermella* Bartsch, 1944

Type species: *Pleurotoma inermis* Hinds, 1843.

234. *Ophiidermella erosa* (Schrenck, 1861)

[*Pleurotoma (Clavatula) erosa* Schrenck, 1861: 410; *Ophiidermella erosa*: Higo *et al.*, 1999: 310; Min, 2004: 265-267, fig. 749; "*Bela*" *erosa*: Kantor and Sysoev, 2006: 219, pl. 111 A-B].

Type locality: De Castri Bay, Tatar Strait (East Sea).

Distribution: Asian low-boreal species; I, II, III, IV, V, VI, VII; common.

Habitat: 5-47 m; mainly muddy sand and sand.

235. *Ophiidermella ogurana* (Yokoyama, 1922)

[*Genotia ogurana* Yokoyama, 1922: 38-39, pl. I, fig. 29; *Ophiidermella ogurana*: Higo *et al.*, 1999: 310; Kantor and Sysoev, 2006: 218, pl. 111 K].

Type locality: Sado Island, East Sea (fossil).

Distribution: Asian low-boreal species; I, VIII; rare.

Habitat: Mainly muddy sand and sand.

Genus *Suavodrilgia* Dall, 1918

Type species: *Drillia kennicotti* Dall, 1871.

236. *Suavodrilgia kennicotti* (Dall, 1871)

[*Drillia kennicottii* Dall, 1871: 102, pl. 16, fig. 2; *Suavodrilgia kennicottii*: Higo *et al.*, 1999: 311; Min, 2004: 267 fig. 752; Kantor and Sysoev, 2006: 219, pl. 111 J].

Type locality: North Harbour, Unga Island, Alaska.

Distribution: Pacific boreal species; I, IV; rare.

Habitat: 5-50 m; mainly muddy sand and sand.

Subfamily Mangeliinae P.Fischer, 1883

Genus *Guraleus* Hedley, 1918

Type species: *Mangilia picta* Adams and Angas, 1864.

237. *Guraleus deshayesii* (Dunker, 1860)

[*Mangilia (Pleurotoma) deshayesii* Dunker, 1860: 228;

Guraleus deshayesii: Higo *et al.*, 1999: 320; Min, 2004: 271, fig. 775; *Cytharella deshayesii*: Kantor and Sysoev, 2006: 220, pl. 112 D].

Type locality: Nagasaki Harbor, Kyushu Island (East Sea).

Distribution: Asian subtropical species; I; two empty shells.

Habitat: 5-6 m; mud.

Subfamily Oenopotinae Bogdanov, 1987

Genus *Curtitoma* Bartsch, 1941

Type species: *Curtitoma hecuba* Bartsch, 1941 (= *Bela incisula* Verrill, 1882).

238. *Curtitoma becklemishevi* Bogdanov, 1989

[*Curtitoma becklemishevi* Bogdanov, 1989 a: 134, fig. 1, 1-2; 2, a-b; Higo *et al.*, 1999: 313; Min, 2004: 269, fig. 758; Kantor and Sysoev, 2006: 221, pl. 112 G].

Type locality: Paramushir Island, Sea of Okhotsk.

Distribution: Asian low-boreal species; I; single reliable record only.

Habitat: 510-545 m; mud.

239. *Curtitoma candida* (Yokoyama, 1926)

[*Bela candida* Yokoyama, 1926: 261, pl. 34, fig. 1; *Oenopota candida*: Higo *et al.*, 1999: 314; Min, 2004: 269, fig. 765; *Curtitoma candida* Kantor and Sysoev, 2006: 222].

Type locality: Sado Island (East Sea) (fossil).

Distribution: Asian low-boreal species; I; single reliable record only.

Habitat: 88 m; substrate unknown.

240. *Curtitoma decussata* (Couthouy, 1839)

[*Pleurotoma decussata* Couthouy, 1839: 183, pl. 4, fig. 8; *Curtitoma decussata*: Kantor and Sysoev, 2006: 222, pl. 112 I].

Type locality: Cape Cod (Massachusetts Bay) (U. S. A.).

Distribution: Boreal-arctic species; I, II, III, IV, V; common.

Habitat: 25-780 m; mainly muddy sand and sand.

241. *Curtitoma hebes* (Verrill, 1880)

[*Bela hebes* Verrill, 1880: 367; *Curtitoma hebes*:

Kantor and Sysoev, 2006: 222, pl. 112 H].
Type locality: Martha's Vineyard (Massachusetts Bay) (U. S. A.).

Distribution: Amphiboreal species; I, II, V, VI; common.

Habitat: 100-1320 m; mainly muddy sand and sand, stones and pebbles (less frequently).

242. *Curtitoma hokkaidoensis* (Bartsch, 1941)

[*Nematoma hokkaidoensis* Bartsch, 1941: 9, pl. 1, fig. 1; *Obestoma hokkaidoensis*: Higo *et al.*, 1999: 313-314; *Curtitoma hokkaidoensis*: Kantor and Sysoev, 2006: 222-223, pl. 113 M].

Type locality: Off southeast Hokkaido (Japan).

Distribution: Asian low-boreal species; I, II, III; rare.

Habitat: 167-1600 m; muddy sand and sand.

243. *Curtitoma incisula* (Verrill, 1882)

[*Bella incisula* Verrill, 1882: 461, pl. 43, fig. 12, pl. 57, fig. 14; *Curtitoma incisula*: Higo *et al.*, 1999: 312; Kantor and Sysoev, 2006: 223, pl. 113 D-E].

Type locality: Labrador to Newport (U. S. A.) (Northwestern Atlantic).

Distribution: Amphiboreal species; I, II, III, IV, V, VIII; common.

Habitat: 20-190 m; mainly muddy sand, also sand and pebbles .

244. *Curtitoma laurenciana* (Dall, 1919)

[*Lora laurenciana* Dall, 1919a: 43, pl. 15, fig. 6; *Curtitoma laurenciana*: Higo *et al.*, 1999: 312; Kantor and Sysoev, 2006: 223, pl. 113 L].

Type locality: Plover Bay (Bering Strait, Chukchi Peninsula).

Distribution: Pacific boreal species; I, II, III; uncommon.

Habitat: 62-800 m; muddy sand.

245. *Curtitoma microvoluta* (Okutani, 1964)

[*Nematoma microvoluta* Okutani, 1964: 431, pl. 6, fig. 10; *Curtitoma microvoluta*: Higo *et al.*, 1999: 312; Kantor and Sysoev, 2006: 223-224, pl. 113 G].

Type locality: Sagami Bay, Honshu (Japan).

Distribution: Asian low-boreal species; I; single record

only.

Habitat: 269-340 m; muddy sand.

246. *Curtitoma neymanae* Bogdanov, 1989

[*Curtitoma neymanae* Bogdanov, 1989b: 147, fig. 1, 1-2; 2, a-d; Kantor and Sysoev, 2006: 224, pl. 113 B].
Type locality: Chikhachev Bay, Tatar Strait (East Sea).

Distribution: Asian boreal species; I, IV; rare.

Habitat: 0.1-63 m; muddy sand.

247. *Curtitoma violacea* (Mighels and Adams, 1842)

[*Pleurotoma violacea* Mighels and Adams, 1842: 51, pl. 4, fig. 21; *Curtitoma violacea*: Higo *et al.*, 1999: 312-313; Kantor and Sysoev, 2006: 225, pl. 113 C].

Type locality: Casco Bay, Massachusetts (U. S. A.).

Distribution: Boreal-arctic species; I, II, IV, V; common.

Habitat: 6.5-90 m; various substrates, mainly mud.

Genus *Granotoma* Bartsch, 1941

Type species: *Bela krausei* Dall, 1887.

248. *Granotoma albrechti* (Krause, 1885)

[*Bela albrechti* krause, 1885: 276, pl. 18, figs. 3, 11; *Granotoma albrechti*: Higo *et al.*, 1999: 316; Min, 2004: 271, fig. 768; Kantor and Sysoev, 2006: 225, pl. 114 A-B].

Type locality: Plover Bay (Bering Strait, Chukchi Peninsula).

Distribution: Pacific boreal species; I, II, III, V, VI, VII, VIII; common..

Habitat: 3-900 m; various substrates, mainly sand.

249. *Granotoma krausei* (Dall, 1887)

[*Bela krausei* Dall, 1887: 301, pl. 4, fig. 4; *Granotoma krausei*: Higo *et al.*, 1999: 316; Kantor and Sysoev, 2006: 225, pl. 114 A-B].

Type locality: Port Etches, Alaska.

Distribution: Pacific boreal species; I, IV, V; common

Habitat: 53-133 m; mainly muddy sand.

Genus *Obesotoma* Bartsch, 1941

Type species: *Obesotoma japonica* Bartsch, 1941

250. *Obesotoma japonica* Bartsch, 1941

[*Obesotoma japonica* Bartsh, 1941: 7, pl. 1, fig. 11; Higo *et al.*, 1999: 313 (in part, non *O. tenuilirata*); Kantor and Sysoev, 2006: 226, pl. 115 A; *Obesotoma tenuilirata*: Min, 2004: 269, fig. 761].

Type locality: East Sea.

Distribution: Asian low-boreal species; I, II; rare.

Habitat: 10.5-330-380 m; mainly sand.

251. *Obesotoma laevigata* (Dall, 1871)

[*Bela laevigata* Dall, 1871a: 98, pl. 16, fig. 7; *Obesotoma simplex*: Higo *et al.*, 1999: 313; *Obesotoma laevigata*: Kantor and Sysoev, 2006: 226, pl. 114 E].

Type locality: Norton Sound, Alaska.

Distribution: Boreal-arctic species; VI; single record only.

Habitat: 48 m; substrate unknown.

252. *Obesotoma robusta* (Packard, 1867)

[*Bela robusta* Packard, 1867: 232, pl. 7, fig. 12; *Obesotoma robusta*: Higo *et al.*, 1999: 313; Kantor and Sysoev, 2006: 226, pl. 114 I].

Type locality: Caribou Island, Labrador, northeastern Canada.

Distribution: Amphiboreal species; I, II, III, IV, V, VI, VII; common.

Habitat: 7-1600 m; sand and mud.

253. *Obesotoma sachalinensis* Bogdanov, 1989

[*Obesotoma sachalinensis* Bogdanov, 1989b: 150, figs. 1 (5-6); 2 (i-m); Kantor and Sysoev, 2006: 226-227, pl. 114 J].

Type locality: Southern Sea of Okhotsk.

Distribution: Asian boreal species. [This species is absent in collections of the Zoological Institute of the Russian Academy of Sciences and Institute of Marine Biology of the Far-Eastern Branch of the Russian Academy of Sciences. According to Bogdanov's data (1990), this species was reported "in the northern part of the East Sea"].

Habitat: Unknown.

254. *Obesotoma schantarica* (Middendorff, 1848)

[*Pleurotoma schantarica* Middendorff, 1849: 118; *Obesotoma schantarica*: Higo *et al.*, 1999: 313; Kantor

and Sysoev, 2006: 227, pl. 115 B].

Type locality: Yugur Bay (Sea of Okhotsk).

Distribution: Asian boreal species; I, II, III, V, VI, VII; common.

Habitat: 10-400 m; sand, mixture of mud, pebbles, and gravel (less frequently).

255. *Obesotoma solida* (Dall, 1887)

[*Lora solida* Dall, 1887: 301, pl. 3, fig. 4; *Obesotoma solida*: Higo *et al.*, 1999: 313; Kantor and Sysoev, 2006: 227, pl. 114 F].

Type locality: Kiska Harbor, Alaska.

Distribution: Pacific boreal species; I, IV; uncommon.

Habitat: 5-380 m; muddy sand.

256. *Obesotoma tenuilirata* (Dall, 1871)

[*Bela laevigata var tenuilirata* Dall, 1871: 98; *Obesotoma tenuilirata*: Higo *et al.*, 1999: 313 (in part, non *O. japonica* Bartsch, 1941); Kantor and Sysoev, 2006: 227, pl. 114 H].

Type locality: Norton Sound, Alaska.

Distribution: Amphiboreal species; I, II, III, V, VI, VII; common.

Habitat: 47-780 m; mud and muddy sand.

257. *Obesotoma tomiyaensis* (Otuka, 1949)

[*Lora tomiyaensis* Otuka, 1949: 308, pl. 13, fig. 17; *Obesotoma tomiyamaensis*: Higo *et al.*, 1999: 314; *Obesotoma tomiyaensis*: Kantor and Sysoev, 2006: 227].

Type locality: Chiba Prefecture, Honshu Island (Japan) (fossil).

Distribution: Asian low-boreal species; VIII; single record only.

Habitat: 67 m; sand with stones.

258. *Obesotoma uchidai* Habe, 1958

[*Obesotoma uchidai* Habe, 1958: 33, pl. 2, fig. 23; *Obesotoma uchidai*: Higo *et al.*, 1999: 313; Kantor and Sysoev, 2006: 228, pl. 115 K-K'].]

Type locality: Akkeshi Bay, Hokkaido (Japan).

Distribution: Asian low-boreal species; I, VII, VIII; common

Habitat: 17-200 m; various substrates, mainly sand

with stones.

Genus *Oenopota* Mörch, 1852

Type species: *Fusus pleurotomarius* Couthouy, 1838 (= *Buccinum pyramidale* Strøm, 1788).

259. *Oenopota alba* Golikov in Golikov and Scarlato, 1985

[*Oenopota alba* Golikov and Scarlato, 1985:433, fig. 13; Kantor and Sysoev, 2006: 228, pl. 115 E].

Type locality: South-eastern Sakhalin (Sea of Okhotsk).

Distribution: Asian low-boreal species; I; single record only.

Habitat: 220 m; muddy sand.

260. *Oenopota biconica* Bogdanov, 1989

[*Oenopota biconica* Bogdanov, 1989a: 134, fig. 1 (3); 2 (g-e); Kantor and Sysoev, 2006: 228, pl. 115 G].

Type locality: Olga Bay (East Sea).

Distribution: Asian low-boreal species; II; single record only.

Habitat: 22 m; substrate unknown.

261. *Oenopota cancellata* (Mighels and Adams, 1842)

[*Fusus cancellata* Mighels and Adams, 1842: 50; *Oenopota (Noclotoma) cancellata*: Higo *et al.*, 1999: 314; Kantor and Sysoev, 2006: 228, pl. 115 D].

Type locality: Casco Bay, Maine (northeastern USA).

Distribution: Amphiboreal species; I; common.

Habitat: 33-62 m; muddy sand.

262. *Oenopota dubia* Golikov in Golikov and Scarlato, 1985

[*Oenopota dubia* Golikov and Scarlato, 1985: 431-432, fig. 10; Kantor and Sysoev, 2006: 229, pl. 115 F]

Type locality: South-eastern Sakhalin (Sea of Okhotsk).

Distribution: Asian low-boreal species; VIII; single record only.

Habitat: 220 m; muddy sand.

263. *Oenopota elongata* Bogdanov, 1989

[*Oenopota elongata* Bogdanov, 1989a: figs. 1 (4-5), 2

(i-k); Higo *et al.*, 1999: 315; Kantor and Sysoev, 2006: 229, pl. 117 H].

Type locality: Peter the Great Bay (East Sea).

Distribution: Asian low-boreal species; I; single record only.

Habitat: 1076-1400 m; mud.

264. *Oenopota harpa* (Dall, 1885)

[*Bela harpa* Dall, 1884: 523; *Oenopota harpa*: Higo *et al.*, 1999: 314; Kantor and Sysoev, 2006: 229, pl. 116 L].

Type locality: Nunivak Island, Point Barrow, Alaska.

Distribution: Boreal-arctic species; I; rare.

Habitat: 40-201 m; mud.

265. *Oenopota impressa* (Beck in Mörch, 1869)

[*Pleurotoma (Ischnula) impressa* Mörch, 1869 : 21; *Oenopota impressa*: Kantor and Sysoev, 2006: 229-230, pl. 117 J].

Type locality: Spitsbergen (Arctic Ocean).

Distribution: Boreal-arctic species; I, II, III, IV, VI, VII, VIII; common.

Habitat: 43-246 m; mud and muddy sand.

266. *Oenopota inequita* (Dall, 1919)

[*Lora inequita* Dall, 1919a: 44–45, pl. 16, fig. 9; *Oenopota inequita*: Higo *et al.*, 1999: 314-315; Kantor and Sysoev, 2006: 230, pl. 116 G-H].

Type locality: Plover Bay, Bering Sea.

Distribution: Asian species. [This species is absent in collections of the Zoological Institute of the Russian Academy of Sciences and Institute of Marine Biology of the Far-Eastern Branch of the Russian Academy of Sciences. According to Bogdanov's data (1990), this species was reported "in the East Sea near the Asian coasts"].

Habitat: Unknown.

267. *Oenopota pavlova* (Dall, 1919)

[*Lora pavlova* Dall, 1919a : 43, pl 14, fig. 9; *Oenopota (Nodotoma) pavlova*: Higo *et al.*, 1999: 315; Kantor and Sysoev, 2006: 230, pl. 116 B-C].

Type locality: Pribilof Island, Bering Sea.

Distribution: Pacific boreal species. [This species is

absent in collections of the Zoological Institute of the Russian Academy of Sciences and Institute of Marine Biology of the Far-Eastern Branch of the Russian Academy of Sciences. According to Bogdanov's data (1990), this species was reported "in the north part of the East Sea and near the coasts of Sakhalin Island"].
Habitat: Unknown.

Genus *Propebela* Iredale, 1918

Type species: *Murex turricula* Montagu, 1803.

268. *Propebela arctica* (A. Adams, 1855)

[*Bela arctica* A. Adams, 1855: 121; *Propebela viridula*: Higo *et al.*, 1999: 315-316; *Propebela arctica*: Kantor and Sysoev, 2006: 232: pl. 119 A-B].

Type locality: Greenland.

Distribution: Boreal-arctic species; I, II, III; rare.

Habitat: 33-780 m; sand and muddy sand.

269. *Propebela areta* (Bartsch, 1941)

[*Funitoma areta* Bartsch, 1941: 11, pl. 1, fig. 8; *Propebela areta*: Higo *et al.*, 1999: 315; Kantor and Sysoev, 2006: 232, pl. 120 D].

Type locality: Japan Sea (East Sea).

Distribution: Asian boreal species; I, VIII; rare.

Habitat: 1-50 m; rock and muddy sand.

270. *Propebela assimilis* (G. O. Sars, 1878)

[*Bela assimilis* G.O. Sars, 1878: 231, Tab. 23, fig. 8; *Propebela (Propebela) assimilis*: Higo *et al.*, 1999: 315; Kantor and Sysoev, 2006: 232, pl. 119 J].

Type locality: Norway.

Distribution: Boreal-arctic species; I, III, V; common.

Habitat: 8-253 m; muddy sand.

271. *Propebela cingulata* (Golikov and Gulbin, 1977)

[*Oenopota cingulata* Golikov and Gulbin, 1977: 243, figs. 16, 18; Higo *et al.*, 1999: 314; *Propebela cingulata*: Kantor and Sysoev, 2006: 233, pl. 118 J].

Type locality: Shikotan Island, southern Kuril Islands.

Distribution: Asian low-boreal species; I, II, VIII; rare.

Habitat: 10-26 m; muddy sand.

272. *Propebela golikovi* (Bogdanov, 1985)

[*Oenopota golikovi* Bogdanov, 1985: 452, fig. 1, (c-u); 2,

(5); *Propebela golikovi*: Kantor and Sysoev, 2006: 233-234, pl. 120 C].

Type locality: Southern Sakhalin Island (East Sea).

Distribution: Asian low-boreal species; I, VI; common

Habitat: 10-50 m; muddy sand.

273. *Propebela goryachevi* Bogdanov, 1989

[*Propebela goryachevi* Bogdanov, 1989a: 13-7, figs. 1 (8-9), 2 (r-u); Kantor and Sysoev, 2006: 234, pl. 117 A-B].

Type locality: Southern Sakhalin Island (East Sea).

Distribution: Asian boreal species; VII; single record only.

Habitat: 120 m; muddy sand.

274. *Propebela harpularia* (Couthouy, 1838)

[*Fusus harpularia* Couthouy, 1838: 106, pl. 1, fig. 10; *Propebela harpularia*: Kantor and Sysoev, 2006: 234, pl. 119 G].

Type locality: Phillips Point, Massachusetts Bay (U. S. A.).

Distribution: Boreal-arctic species; I, VI, VIII; rare.

Habitat: 19-63 m; muddy sand.

275. *Propebela margaritae* (Bogdanov, 1985)

[*Oenopota margaritae* Bogdanov, 1985: 451, figs. 1 (n-r), 2 (4); *Propebela margaritae*: Higo *et al.*, 1999: 316; Kantor and Sysoev, 2006: 234, pl. 117 D].

Type locality: Bering Island (Bering Sea).

Distribution: Asian boreal species; I; single record only.

Habitat: 60 m; muddy sand.

276. *Propebela marinae* Bogdanov, 1989

[*Propebela marinae* Bogdanov, 1989b: 152, figs. 1 (11-12), 2; Higo *et al.*, 1999: 316; Kantor and Sysoev, 2006: 234, 117 K].

Type locality: Sea of Okhotsk.

Distribution: Asian boreal species; II; single record only.

Habitat: 300 m; muddy sand.

277. *Propebela mitrata* (Dall, 1919)

[*Lora mitrata* Dall, 1919a: 43, pl. 16, fig. 1; *Propebela*

mitrata: Higo *et al.*, 1999: 316; Kantor and Sysoev, 2006: 234-235, 118 A].

Type locality: Shumagin Islands (Alaska).

Distribution: Asian boreal species; I; single record only.

Habitat: 62 m; muddy sand.

278. ***Propebela nobilis*** (Møller, 1842)

[*Defrancia nobilis* Møller, 1842: 85; *Propebela nobilis*: Higo *et al.*, 1999: 315; Kantor and Sysoev, 2006: 235, 120 G].

Type locality: Southwestern Greenland.

Distribution: Boreal-arctic species; I, II, IV, V, VI, VII, VIII; common.

Habitat: 22-548 m; various substrates, mainly sand and muddy sand.

279. ***Propebela svetlanae*** Bogdanov, 1989

[*Propebela svetlanae* Bogdanov, 1989b: 151, figs. 1 (7-8), 2 (n-p); Kantor and Sysoev, 2006: 236, 118 B].

Type locality: Nagaec Bay, Sea of Okhotsk.

Distribution: Asian boreal species; I; single record only.

Habitat: 33 m; muddy sand.

280. ***Propebela terpeniensis*** Bogdanov, 1989

[*Propebela terpeniensis* Bogdanov, 1989b: 151, figs. 1 (10), 2; Kantor and Sysoev, 2006: 236, 118 D].

Type locality: Topina Cape, southern Sakhalin (Sea of Okhotsk).

Distribution: Asian low-boreal species. [This species is absent in collections of the Zoological Institute of the Russian Academy of Sciences and Institute of Marine Biology of the Far-Eastern Branch of the Russian Academy of Sciences. According to Bogdanov's data (1990), this species was reported "in the waters of Primorye Region"].

Habitat: Unknown.

281. ***Propebela tersa*** Bartsch, 1941

[*Canetoma tersa* Bartsch, 1941: 6, pl. 1, fig. 6;

Propebela exarata tersa: Higo *et al.*, 1999: 316;

Propebela tersa: Kantor and Sysoev, 2006: 236, 117 F.

Type locality: Primorye, East Sea.

Distribution: Amphiboreal species; I, II, III, VI, VIII; common.

Habitat: 33-196 m; sand and muddy sand.

282. ***Propebela verrilli*** Bogdanov, 1989

[*Propebela (Propebela) verrilli* Bogdanov, 1989a: 137, figs. 1 (6-7), 2 (l-p); Kantor and Sysoev, 2006: 237, 119 E].

Type locality: Nelma Cape, Primorye, East Sea.

Distribution: Asian low-boreal species; III; single record only.

Habitat: 31 m; mud mixed with pebbles and gravel.

Genus ***Antiplanes*** Dall, 1902

Type species: *Pleurotoma perversa* Gabb, 1865.

283. ***Antiplanes kurilensis*** Kantor and Sysoev, 1991

[*Antiplanes kurilensis* Kantor and Sysoev, 1991: 136-137, fig. 6, 89-93, 104; 2006, 215, pl. 110 M].

Type locality: Iturup Island, Kurile Islands.

Distribution: Asian species; VIII; three empty shells.

Habitat: 115 m; shells and sand.

284. ***Antiplanes sanctioannis*** (E.A. Smith, 1875)

[*Pleurotoma (?) Sancti-Ioannis* Smith, 1875: 416-417; *Antiplanes sanctioannis*: Kantor and Sysoev, 1991: 130-136, fig. 1, 11-17, 25-28, 59-88, 100-103; 2006: 216, pl. 110; Higo *et al.*, 1999: 305].

Type locality: Hokkaido Island (Japan).

Distribution: Pacific boreal species; I, II, III, IV, V, VI, VIII; common.

Habitat: 43-400 m; mainly muddy sand and sand, less frequently with pebbles.

285. ***Antiplanes vinosa*** (Dall, 1874)

[*Pleurotoma vinosa* Dall, 1874: 553; *Antiplanes vinosa*: Higo *et al.*, 1999: 306; Kantor and Sysoev, 2006: 216, pl. 110 L].

Type locality: Kiska Harbour, Aleutian Islands (Alaska).

Distribution: Pacific boreal species; I, II, VI, VIII; uncommon.

Habitat: 63-200 m; mainly muddy sand and sand, less frequently with stones.

REFERENCES

- Adams, A. (1855) Descriptions of two new genera and several new species of Mollusca, from the Collection of Hugh Cuming, Esq. *Proceedings of the Zoological Society of London*, part 23: 119-124.
- Adams, A. (1861) On some new species of Mollusca from the North of China and Japan. *Annals and Magazine of Natural History*, series 3, 8: 135-142.
- Adams, A. (1863) On the species of Fusidae which inhabit the seas of Japan. *Journal of the Proceedings of the Linnean Society of London, Zoology*, 1: 105-108.
- Adams, A. and Reeve L. (1848) Mollusca. In: Adams A., ed. The zoology of the voyage of H.M.S. Samarang under the command of Captain Edward Belcher during the years 1843-1846. Part 1, pp. 1-24. London.
- Adams, H. and Adams, A. (1864) Descriptions of new species of shells, chiefly from the Cumingian collection. *Proceedings of the Zoological Society of London*. part 3 for 1863:428-435.
- Bartsch, P. (1941) The nomenclatorial status of certain northern turritid mollusks. *Proceedings of the Biological Society of Washington*, 54: 1-14.
- Bogdanov, I.P. (1985) New species of gastropod molluscs of the genus *Oenopota* (Gastropoda, Turridae) from Far Eastern seas of the USSR. *Zoological Journal*, 64 (3) : 448-453. [in Russian].
- Bogdanov, I.P. (1989a) Five new Japan Sea species of Oenopotinae (Gastropoda, Turridae). *Zoological Journal*, 68 (9) : 134-138. [in Russian].
- Bogdanov, I.P. (1989b) Seven new species of Oenopotinae (Gastropoda, Turridae) from the Okhotsk Sea. *Zoological Journal*, 68 (9) : 147-152. [in Russian].
- Bogdanov, I.P. (1990) Molluscs of the subfamily Oenopotinae (Gastropoda, Pectinibranchia, Turridae) of seas of the USSR. 223 pp. Nauka, Leningrad. [in Russian].
- Couthouy, J.P. (1838) Descriptions of new species of Mollusca and shells and remarks on several polypi found in Massachusetts bay. *Boston Journal of Natural History*, 2 (1) : 53-111.
- Couthouy, J. P. (1839) Monograph on the family Osteodesmacea of Deshayes, with remarks on two species of Patelloidea and descriptions of new species of marine shells, a species of Anculotus and one of Eolis. *Boston Journal of Natural History*, 2 (2) : 129-189.
- Dall, W.H. (1874) Catalogue of shells from Bering Strait and the adjacent portions of the Arctic Ocean, with descriptions of three new species. *Proceedings of the California Academy of Sciences*, 5: 246-253.
- Dall, W.H. (1871) Descriptions of sixty new forms of mollusks from the west coast of North America and the North Pacific Ocean, with notes on others already described. *American Journal of Conchology*, 7 (2) : 93-160.
- Dall, W.H. (1877) Preliminary descriptions of new species of mollusks from the northwest coast of America. *Preprint of Proceedings of Californian Academy of Sciences*, [preprint of vol. 7]: 1-6 [Volume 7 never published].
- Dall, W.H. (1884) Contributions to the history of Commander Islands. No. 3. Report on the Mollusca of the Commander Islands, Bering Sea, collected by Leonhard Stejneger in 1882 and 1883. *Proceedings of the United States National Museum*, 7 (442) : 340-349.
- Dall, W.H. (1887 [1886]) Supplementary notes on some species of mollusks of the Bering Sea and vicinity. *Proceedings of the United States National Museum*, 9 (571) : 297-309.
- Dall, W.H. (1891) Scientific results of explorations by the U.S. Fish Commission steamer "Albatross". XX. On some new or interesting west American shells obtained from the dredgings of the U.S. Fish Commission steamer "Albatross" in 1888, and from other sources. *Proceedings of the United States National Museum*, 14 (849) : 173-191.
- Dall, W.H. (1899) The mollusk fauna of the Pribilof Islands. The fur seals and fur-seal islands of the North Pacific Ocean, pt. 3. Washington, Government Print: 539-546.
- Dall, W.H. (1902b) Illustrations and descriptions of new, unfigured or imperfectly known shells, chiefly American, in the U. S. National Museum. *Proceedings of the United States National Museum*, 24 (1264) : 499-566, pls. 27-40.
- Dall, W.H. (1907) Descriptions of new species of shells, chiefly Buccinidae, from dredgings of the U.S.S. "Albatross" during 1906, in the northwestern Pacific, Bering, Okhotsk, and Japanese Seas. *Smithsonian Miscellaneous Collections*, 50, part 2, no. 1727: 139-173.
- Dall, W.H. (1918) Notes on *Chrysodomus* and other mollusks from the North Pacific Ocean. *Proceedings of the United States National Museum*, 54 (2234) : 207-234.
- Dall, W.H. (1919a) Descriptions of new species of mollusks of the family Turritidae from the west coast of America and adjacent regions. *Proceedings of the United States National Museum*, 56 (2288) : 1-86.
- Dall, W.H. (1919b) Descriptions of new species of Mollusca from the North Pacific Ocean in the collection of the United States National Museum. *Proceedings of the United States National Museum*, 56 (2295) : 293-371.
- Dall, W.H. (1925) Illustrations of unfigured types of shells in the collections of the United States National Museum. *Proceedings of the United States National Museum*, 66 (2554) : 1-41.
- Deshayes, G.P. (1839) Nouvelles especes de mollusques,

- provenant des cotes de la Californie, du Mexique, de Kamtschatka et de Nouvelle-Zelande. *Revue Zoologique de la Societe Cuvierienne*, **2** (32) : 356-361.
- Dunker, W.R. (1847) Diagnoses Buccinorum quorundam novorum. *Zeitschrift fur Malakozoologie*, **4**: 59-64.
- Dunker, W.R. (1860) Neue japanische Mollusken. *Malakozoologische Blatter*, **6**: 221-240.
- Dunker, W.R. (1882) Index Molluscorum maris Japonici. 301 pp. Cassells catorum.
- Fabricius, O. (1780) Fauna groenlandica. 452 pp. I.G. Rothe, Kebenhavn und Leipzig.
- Galkin, Yu.I. and Scarlato, O.A. (1955) Gastropods-Gastropoda. In: Strelkov A.A., ed. Atlas of invertebrates of Far Eastern seas of USSR. 167-175 pp. Published by Academy of Science of USSR, Moscow-Leningrad.
- Gaskoin, J.S (1851) Descriptions of twenty species of Columbellae, and one species of Cypraea. *Proceedings of the Zoological Society of London*: 2-14. Reprinted, 1852, *Annals and Magazine of Natural History*, series 2, **10**: 367-372.
- Gmelin, J.F. (1791) Caroli a Linne Systema naturae per regna tria naturae. Editio decima tertia. Vol. 1 (6), Vermes: 3021-3910. Lipsiae, R. Poll.
- Golikov, A.N. (1962) New species of the gastropod molluscs of the genus Neptunea from the Far-East seas of the USSR. *Proceedings of the Zoological Institute, Leningrad*. 30: 1-10. [in Russian].
- Golikov, A.N. (1980) Molluscs Buccininae of the World Ocean. 466 pp. Nauka, Leningrad. [in Russian].
- Golikov, A.N. and Gulbin, V.V. (1977) Prosobranchiate gastropods (Gastropoda, Prosobranchiata) of the shelf of Kurile Islands. II. Ordo Hamiglossa-Homoestropha. In: Fauna of coastal zones of Kurile Islands. 172-268 pp. Nauka, Moscow. [in Russian].
- Golikov, A.N., Kussakin, O.G. (1974) Additions to the fauna of shell-bearing gastropods from the intertidal zone of the Kurile Islands. In: Flora and fauna of the intertidal zone of Kurile Islands. 289-299 pp. Novosibirsk, Nauka. [in Russian].
- Golikov, A.N. and Scarlato, O.A. (1967) Molluscs of the Possiet Bay (the Sea of Japan) and their ecology. *Proceedings of the Zoological Institute, Leningrad*. **42**: 5-154. [in Russian].
- Golikov, A.N. and Scarlato, O.A. (1985) Shell-bearing gastropod and bivalve molluscs of the shelf of southern Sakhalin and their ecology. *Explorations of the Fauna of the seas*, **30**: 360-487. [in Russian].
- Gould, A.A. (1860) Descriptions of shells collected in the North Pacific Exploring Expedition under Captains Ringgold and Rodgers. *Proceedings of the Boston Society for Natural History*, **7**: 323-336; 337-340; 382-384.
- Gulbin, V.V. (2004) Fauna of Prosobranch Gastropods of Peter the Great Bay, Sea of Japan, and the Biogeographical Composition. *Russian Journal of Marine Biology*. **30** (1) : 1-10.
- Habe, T. (1958) The fauna of Akkeshi Bay XXV. Gastropoda. Publications from the Akkeshi Marine Biological Station, Hokkaido University, Sapporo, **8**: 1-40.
- Habe T., Ito K. (1970) Clinopegma sasaki n.sp. from Hokkaido (Buccinidae). *Venus*, **29** (4) : 107-109.
- Higo, Sh., Callomon, P. and Goto, Y. (1999) Catalogue and Bibliography of the Marine Shell-bearing Mollusca of Japan. 749 pp. Elle Scientific Publication. Osaka.
- Jousseume, F. (1883) Description d'especes et genres nouveaux de Mollusques. *Bulletin de la Societe Zoologique de France*, **8**: 186-204.
- Kantor Yu.I. (1984) "Volutopsius middendorffii" complex and description of *Colus bukini* sp.n. from inshore waters of Kurile Islands (Gastropoda, Buccinidae). *Zoological Journal*, **63** (11) : 1616-1628. [in Russian].
- Kantor, Yu.I. and Sysoev A.V. (2006) Marine and brackish water Gastropoda of Russia and adjacent countries: an illustrated catalogue. 371 pp. KMK Scientific Press Ltd. Moscow.
- Kantor, Yu.I. and Sysoev, A.V. (1991) Mollusks of the genus *Antiplanes* (Gastropoda: Turridae) of the Northwestern Pacific Ocean. *The Nautilus*. **105** (4) : 119-146.
- Kobelt W. (1882) Die Buccinen des Petersburger Museums. *Jahrbücher der Deutschen Malakozoologischen Gesellschaft*, **9**: 229-335.
- Kobelt W. (1883) Die Gattung Buccinum L. In: Kuster H.C., ed. Systematisches Conchylien Cabinet von Martini und Chemnitz: 1-112, pis. 1-93.
- Kosyan, A.R. (2006) Two new species of the genus *Pararetifusus* Kosuge, 1967 (Buccinidae: Colinae), with notes on the morphology of *Pararetifusus tenuis* (Okutani, 1966). *Ruthenica*, **16** (1-2) : 5-15.
- Kosyan, A.R. (2007) Morphology and taxonomy of gastropod mollusks of the subfamily Colinae (Neogastropoda: Buccinidae) of the Far-Eastern seas of Russia. 24 pp. The Authors' Abstract for a Candidate of Biological Sciences Degree. Moscow. [in Russian]
- Krause, A. (1885) Ein Beitrag zur Kenntnis der Mollusken-Fauna der Berings-Meer. *Archiv für Naturgeschichte*, **51** (1) : 14-40, 256-302.
- Leche, W. (1878) Öfversigt öfver de af Svenska Expeditionema till Novaja Semlja och Jenissej 1875 och 1876 issamlade Hafs-Mollusker. *Handlingar Svenska Vetenskaps-Akademiens*, **16** (2) : 1-86.
- Middendorff, A.T. (1848) Vorläufige Anzeige einiger neuer Konchylien Russlands, aus den Geschlechtern: *Scalaria*, *Crepidula*, *Velutina*, *Trichotropis*, *Purpura* und *Pleurotoma*. *Bulletin de la Classe Physico-Mathematique de l'Academie Impériale des Sciences de Saint-Petersbourg*, (2) : 1-4 (pagination according to reprint).
- Middendorff, A.T. (1849) Beiträge zu einer

- Malacozologia Rossica. II. Aufzählung und Beschreibung der zur Meeresfauna Russlands gehörigen Einschaler. *Mémoires de l'Académie Impériale des Sciences de Saint-Petersbourg, Serie 6. Sciences Mathématique, Physique et Naturelles*, **8** (5-6) : 329-516 (In reprint pp. 1-187)
- Mighels, J.W. and Adams C.B. (1842) Descriptions of twenty-four species of the shells of New England. *Boston Journal of Natural History*, **4**: 37-54.
- Min, D.-K. (2004) Mollusks in Korea. 566 pp. Min Molluscan Research Institute, Seoul. [in Korean]
- Møller, H.P.C. (1842) Index Molluscorum Groenlandiae. *Naturhistorisk Tidsskrift*, (1) **4** (1) : 76-97.
- Mörch, O.A.L. (1857) Diagnoses Molluscorum novorum littoris Americae occidentalis. *Videnskabelige Meddelelser fra den naturhistoriske Forening i Kjøbenhavn*: 340-342.
- Mörch, O.A.L. (1869) Catalogue des mollusques du Spitzberg, recueillies par le Dr. H. Krøyer pendant le voyage de la corvette la Recherche en juin 1838. *Mémoires de la Societe Malacologique de Belgique*, **4**: 7-32.
- Okutani, T. (1964) Report on the archibenthal and abyssal gastropod Mollusca mainly collected from Sagami Bay and adjacent waters by the R.V. Soyo-Maru during the years 1955-1963. *Journal of the Faculty of Science, University of Tokyo*, section II, **15** (3) : 371-447.
- Otuka, Y. (1949) Fossil Mollusca and rocks of the Kiyosumi Group exposed at Minato-machi, Chiba Prefecture and its environs. *Japanese Journal of Geology and Geography*, **21** (1-4) : 295-309.
- Packard, A.S. (1867) Observations on the glacial phenomena of Labrador and Maine, with a view of the Recent invertebrate fauna of Labrador. *Memoirs of the Boston Society of Natural History*, new series, **1** (2) : 210-303.
- Recluz, C.A. (1851) Description de quelques coquilles nouvelles. *Journal de Conchyliologie*, **2**: 194-216.
- Reeve, L.A. (1848) Monograph of the genus *Fusus*. Pls. 15-21, sp. 56-91. *Conchologia Iconica: or, illustrations of the shells of molluscous animals*. Reeve, Benham, and Reeve, vol. 4. London,
- Sars, G.O. (1878) Mollusca regionis arcticae Norvegiae. Oversigt over de i Norges arktiske region forekommende Bløddyr. Bidrag til kundskaben om Norges arktiske fauna. **1**, 466 pp. Christiania.
- Schrenck, L. (1861-1863) Vorläufige Diagnosen einiger neuer Molluskenarten aus der Meerenge der Tartarei und dem Nordjapanischen Meere. *Bulletin de l'Académie Impériale des Sciences de St.-Petersbourg*, **4**: 408-413 (1861); **5**, 510-514 (1863).
- Smith, E.A. (1875) A list of the Gastropoda collected in Japanese seas by Commander H. C. St. John. R.N. *Annals and Magazine of Natural History*, series 4, **15**: 414-427; **16**: 103-115,
- Sowerby, G.B. (1880) Monograph of the genera *Trophon*, *Fusus*, *Pyrula* and *Ficus*, In: *Thesaurus conchyliorum, or monographs of genera of shells*, vol. 4. 59-110 pp. London.
- Sowerby, G.B. (1899) Descriptions of two new species of shells from Japan. *Annals and Magazine of Natural History*, series 7, **4** (19) : 370-372.
- Ström, H. (1768) Beskrivelse over norske insekter. Andet stykke. *Konglige norske Videnskabers Selskab i Trondheims Skrifter*, **4**: 313-371.
- Teramachi, A. (1933) The whelk fishing in Toyama Bay. *Venus*, **3** (6) : 358-365. [In Japanese].
- Tiba, R. (1973) Descriptions of two new species of the genus *Colus* (Buccinidae). *Venus*, **32** (3) : 65-69.
- Valenciennes, A. (1846) Atlas de Zoologie, Mollusques. In: Petit-Thouars A. Voyage autour du monde sur la fregate la Vénus, pendant les années 1836-1839; publié par ordre du Roi sous les auspices du Ministre de la Marine par Abel du Petit Thouars. 27 pls., numbered 1-24. Gideet Cie., Paris:
- Valenciennes, A. (1858) [Nouvelle especes de coquilles]. *L'Institut, Journal Universel des Sciences et des Societé Savantes*, Ire Section, **26**, avril, 28, 1858: 143-144.
- Verkrüzen, T.A. (1882) Buccinum L. *Jahrbuch der Deutschen Malakozoologischen Gesellschaft*, **9**: 203-221, 356-365.
- Verrill, A.E. (1880) Notice on recent additions to the marine Invertebrata of the northeastern coast of America, with descriptions of new genera and species and critical remarks on others. *Proceedings of the United States National Museum*, **3**: 356-405.
- Verrill, A.E. (1882) Catalogue of marine Mollusca added to the fauna of the New England region during the past ten years. *Transactions of the Connecticut Academy of Arts and Sciences*, **5** (2) : 451-587.
- Yokoyama, M. (1922) Fossils from the Upper Musashino of Kazuza and Shimosa. *Journal of the College of Science. Imperial University, Tokyo*, **44** (1) : 1-200.
- Yokoyama, M. (1926) Fossil shells from Sado. *Journal of the Faculty of Science, Imperial University, Tokyo*, series 2, **1** (8) : 249-312.