HV 2021-37
ISSN 2298-9137

HAF- OG VATNARANNSÓKNIR

MARINE AND FRESHWATER RESEARCH IN ICELAND

Mollusca (Bivalvia, Gastropoda, Polyplacophora and Scaphopoda) around Iceland: Sampling effort in research surveys in 2013-2015

Christiane Delongueville[1], Jónbjörn Pálsson[2], Roland Scaillet[1], Steinunn H. Ólafsdóttir[2]

[1] Royal Belgian Institute of Natural Sciences (RBINS), Brussels, Belgium
[2] Marine and Freshwater Research Institute, Hafnarfjörður, Iceland

HAFNARFJÖRÐUR - JÚLÍ 2021

Mollusca (Bivalvia, Gastropoda, Polyplacophora and Scaphopoda) around Iceland: Sampling effort in research surveys in 2013-2015

Christiane Delongueville[1], Jónbjörn Pálsson[2], Roland Scaillet[1], Steinunn H. Ólafsdóttir[2]

[1] Royal Belgian Institute of Natural Sciences (RBINS), Brussels, Belgium
[2] Marine and Freshwater Research Institute, Hafnarfjörður, Iceland

Haf- og vatnarannsóknir
Marine and Freshwater Research in Iceland

HAFRANNSÓKNASTOFNUN
Rannsókna- og ráðgjafarstofnun hafs og vatna

Upplýsingablað

Titill: Mollusca (Bivalvia, Gastropoda, Polyplacophora and Scaphopoda) around Iceland: sampling effort in research surveys in 2013-2015		
Höfundur: Christiane Delongueville, Jónbjörn Pálsson, Roland Scaillet, Steinunn H. Ólafsdóttir		
Skýrsla nr: HV 2021-37	**Verkefnisstjóri:** Steinunn H. Ólafsdóttir	**Verknúmer:** 9193
ISSN 2298-9137	**Fjöldi síðna:** 34	**Útgáfudagur:** 9. júní 2021
Unnið fyrir: Hafrannsóknastofnun eða aðrir	**Dreifing:** Opið	**Yfirfarið af:** Hrönn Egilsdóttir, Eric dos Santos

Ágrip

Í júní 2010 hófst áralangt samstarf milli sérfræðinga hjá Hafrannsóknastofnun og belgískra sérfræðinga í lindýrum. Samstarfið hefur leitt af sér umfangmestu skráningar lindýra í kringum Ísland síðan verkefnið Botndýr á Íslandsmiðum (BIOICE, 1991-2004) fór fram. Þessi skýrsla kynnir niðurstöður söfnunar í sex rannsóknaleiðöngrum frá 2013 til 2015 þar sem alls voru greindar 95 tegundir frá fjórum ættbálkum lindýra (samlokur, sæsniglar, sætennur og nökkvar).

Abstract

In June 2010, a collaboration between scientists of the Marine and Freshwater Research Institute and Belgian mollusc specialists was initiated. This collaboration has led to the most extensive registration and sampling of Mollusca around Iceland since the Benthic Invertebrates in Icelandic waters (BIOICE) project (1991-2004). This report presents the results of the sampling during six research surveys in 2013 to 2015 where a total of 95 species of four Mollusca classes (Bivalvia, Gastropoda, Scaphopoda and Polyplacophora) have been collected and identified.

Lykilorð: *Mollusca, by-catch, Bivalvia, Gastropoda, Scaphopoda, Polyplacophora, distribution*

Undirskrift verkefnisstjóra:	**Undirskrift forstöðumanns sviðs:**
Steinunn H. Ólafsdóttir	

Table of Contents

List of Tables

Table of Figures

Appendices

Introduction

In June 2010, a Belgian mollusc specialist and an Icelandic fisheries scientist at the Marine Research Institute (MRI; currently Marine and Freshwater Research Institute, MFRI) met by coincidence during Fisherman's Day in Iceland. This meeting led to a collaboration where the fisheries scientist, with access to surveys and material, and the identification skills of the mollusc specialist came together and initiated the most extensive registration and sampling of Mollusca around Iceland since the Benthic Invertebrates in Icelandic waters (BIOICE) project (1991-2004).

Besides the publications on Zoology of Iceland by Thorson (1941) and Madsen (1949), Ingimar Óskarsson (1892-1981), a botanist and shell expert, published a book on Icelandic Bivalvia in 1952 and on Gastropoda in 1962. These books were then published together in a single volume with additions (Óskarsson, 1982). More recent revisions have been published in scientific publications on specific groups within Mollusca based on the BIOICE material sampled around Iceland. These revisions are based on samples from the shallow to the deep waters within the Icelandic EEZ (Exclusive Economic Zone).

This report presents the results of the sampling during six research surveys in 2013 to 2015 where a total of 95 species of four Mollusca classes (Bivalvia, Gastropoda, Scaphopoda and Polyplacophora) have been collected and identified.

Material and methods

Collection and identification of the material

Molluscs were collected by Jónbjörn Pálsson (J.P.) during six surveys conducted by the Marine Research Institute in 2013-2015 (Figure 1). The samples were collected as by-catch when bottom trawling for fish and lobster, the stomach and gut contents were investigated from various fish species [*Anarhichas* (wolffish), *Hippoglossoides platessoides* (long rough dab) and *Melanogrammus aeglefinus* (haddock)] and molluscs therein were collected. In addition, remains of crushed shells, sponges, and other benthic material in the trawl ("sweep ups") were examined for molluscs. As this collection of molluscs was outside the general data collection conducted in the surveys, mollusc material was only collected when J.P. was on shift. Thus, the distribution of individual mollusc species found in a survey does not necessarily show the total distribution in that particular survey.

The molluscs were placed in plastic bags and frozen on board the vessel. Most of the samples were prepared in Iceland and then transferred to Belgium for identification of specimens. Later, the specimens were identified to species level or to the lowest taxonomical level by Christiane Delongueville and Roland Scaillet, inspired by personal interest. To facilitate identification of the species, a table (Appendix 1) was made to put in concordance the currently accepted scientific names of the molluscs with the corresponding names in Óskarsson's publication (1982), the only other existing comprehensive reference for Icelandic molluscs. Despite some modifications in the actual nomenclature, old references such as H. Friele (1882) and G.O. Sars (1878) are most valuable for the determination of most of the common species present in Icelandic waters, thanks to their very precise iconographies. Finally, the species list was unified with World Register of Marine Species (WoRMS 2021) to confirm the updated list of accepted species names. Some of the names are different to what is considered as valid in WoRMS, in each case an explanation is given to justify the names used.

All molluscs were alive when sampled except when otherwise indicated (empty = only shell available; worn out = empty + shell in very bad condition). When the specimens were completely broken, they were nevertheless identified (when possible), reported but not kept. A type specimen for each species of mollusc was photographed. Occasional Echinodermata, Cnidaria, Cirripedia and Brachiopoda were mixed in with the sample and were also identified and reported.

Research surveys

Surveys A10-2013 and TL2-2014: The annual autumn groundfish stock assessment in deep waters around Iceland on R/V Árni Friðriksson (A10-2013) and a hired commercial trawler (TL2-2014). Samples were collected around Iceland from 200 to 1500 m depth.

Surveys A3-2014, A2-2015: The annual spring groundfish stock assessment survey on R/V Árni Friðriksson. Samples were collected in the western part of Iceland at 50-500 m depth.

Surveys D4-2014 and D2-2015: Annual lobster (*Nephrops norvegicus*) survey on R/V Dröfn off South and Southwest Iceland. Samples were collected at 110-280 m depth.

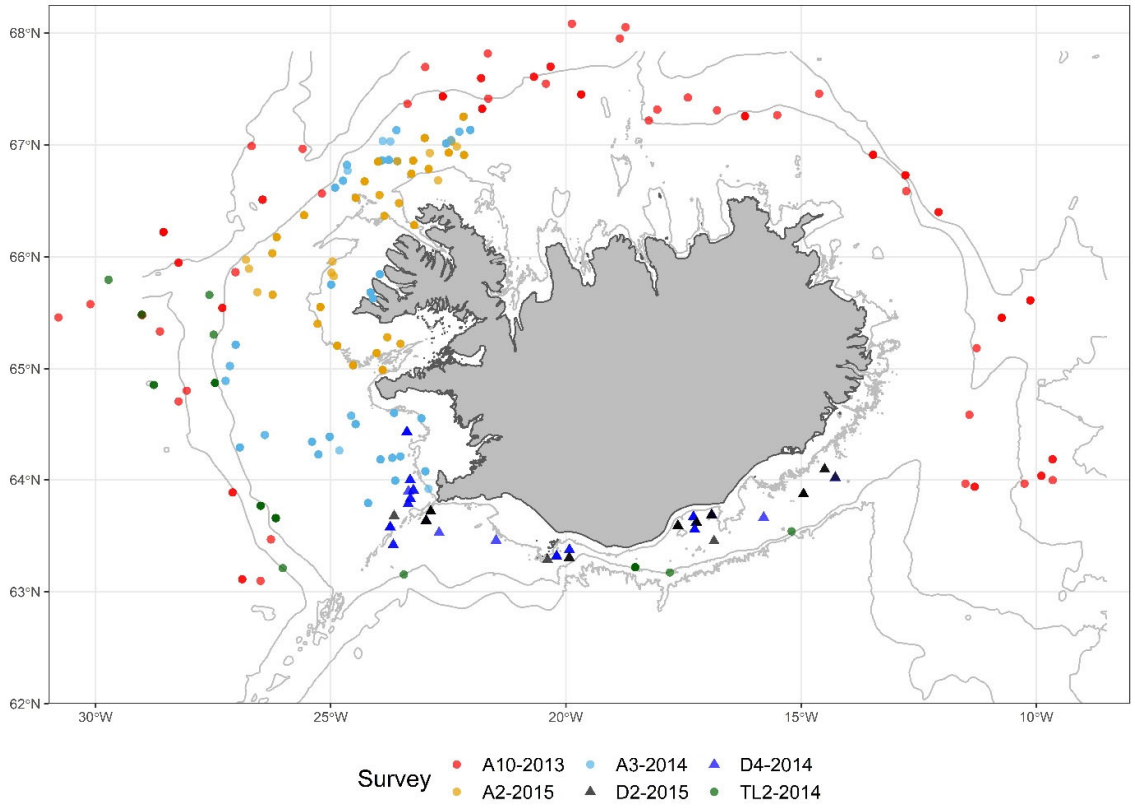


Figure 1. Sampling stations where Mollusca were collected in the six surveys conducted in 2013-2015.

The data is stored in the Icelandic Benthic Database (MFRI and Icelandic Institute of Natural History) and the collected samples are kept in Brussels by RBINS research associates.

Results

Samples were collected at 173 stations between 63°.10N to 68°.08N and -9°6W to -30°.7W at a depth range of 17 to 1330 m. Bottom temperature was -0.7 to 8.3°C. Most of the sampling took place in the western and southern regions of Icelandic waters during the spring surveys. Specimens were also collected in two autumn surveys sampling offshore waters from north-west around to the east of Iceland and during the annual lobster (*Nephrops norvegicus*) surveys that took place to the south of Iceland (Figure 1). Survey and station list is provided in Appendix 2.

A total of 95 species was identified: 46 species of Bivalvia, 45 species of Gastropoda, 2 species of Polyplacophora and 2 species of Scaphopoda (Table 1). The Family Buccinidae (Gastropoda)

was most dominant in number of species. Gastropoda were sampled at most stations where molluscs were recorded, or a total of 133, Bivalvia were sampled at 76 stations, Polyplacophora were sampled at 3 stations and Scaphopoda were sampled at two stations (Table 2). Specimens from other taxonomical Phyla that were among the samples were collected at nine stations and also identified (Table 2).

Table 1. Number of species sampled per survey and per Mollusca class. Other indicates specimens of other taxonomical Phyla that were among the samples.

Survey	Bivalvia	Gastropoda	Polyplacophora	Scaphopoda	Other
A10-2013	4	11	-	-	-
A3-2014	35	30	1	1	4
D4-2014	11	7	-	-	-
TL2-2014	10	6	1	1	3
A2-2015	17	26	-	-	-
D2-2015	10	11	-	-	-
TOTAL	46	45	2	2	5

Table 2. Survey names and number of stations where each of the four Mollusca classes were collected. Other indicates specimens of other taxonomical Phyla that were among the samples.

Survey	Bivalvia	Gastropoda	Polyplacophora	Scaphopoda	Other
A10-2013	4	36	-	-	-
A3-2014	26	34	1	1	6
D4-2014	12	14	-	-	-
TL2-2014	9	6	2	1	3
A2-2015	19	31	-	-	-
D2-2015	6	12	-	-	-

Remarks concerning certain species

Bivalvia

The ***Astarte* complex (Astartidae)** is quite complicated due to diverging opinions of authors and contradictory iconographies in the literature. We decided to follow the opinion of Huber (2010: 650). When discussing *A. crenata* he wrote: "*Following Dall and European authors, the NW Atlantic* subaequilatera *and the NE Atlantic* crebricostata *are here separated as valid species. From the material seen so far, the Iceland specimens are perceived to represent*

subaequilatera*, but not true crenata and not* crebricostata." A plate with all Icelandic Astartidae is here illustrated for clarification (Figure 2).

Figure 2. *Astarte* complex.

Asperarca nodulosa (**Arcidae**) was found attached to pieces of *Desmophyllum pertusum* (**Hexacorallia - Caryophylliidae**) on station A3-2014-23 (375–405 m) (Figure 3).

Kellia suborbicularis (**Lasaeidae**) was found in a tuft of *Tubularia indivisa* (**Hydrozoa - Tubulariidae**) on station D2-2015-5 (170–142 m) (Figure 3).

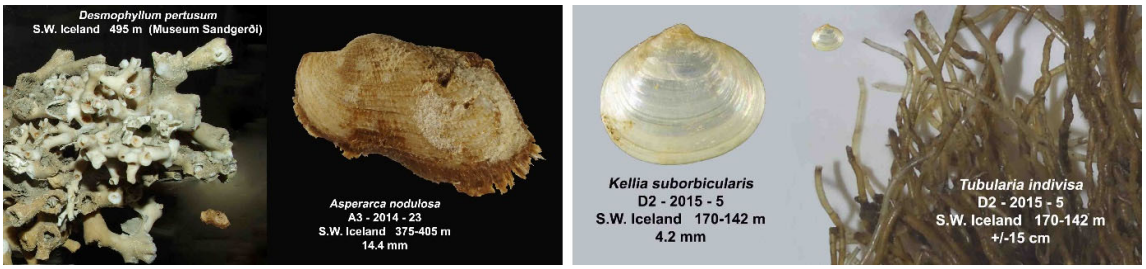


Figure 3. *Asperarca nodulosa* found on the coral *Desmophyllum pertusum* (left). *Kellia suborbicularis* found on the hydrozoid *Tubularia indivisa* (right).

Delectopecten vitreus (**Pectinidae**) was attached to a hard sponge (**Porifera sp.**) at station A10-2013-538 (1330–1312 m) (Figure 4).

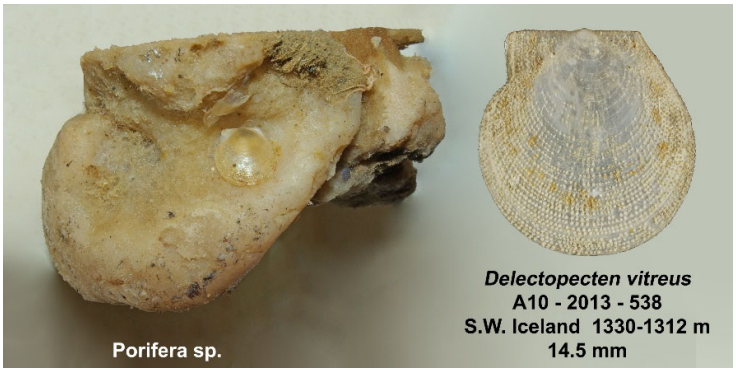


Figure 4. *Delectopecten vitreus* attached to sponge

Heteranomia squamula (**Anomiidae**) was present on a large number of bivalves (*Acesta* a.o.), gastropods (*Neptunea* a.o.) and other shells coming from roughly all collecting stations. Most of them were not reported, the occurrence on the map is consequently not representative (Figure 5).

Figure 5. *Heteranomia squamula* found on *Acesta excavata*.

Idas* cf. *cylindricus (**Mytilidae**) (Figure 6) was found fixed by its byssus on a toothed whale bone. Five specimens were collected at station D4-2014-53 (188–211 m). This find was described in further detail in Delongueville & Scaillet (2019). All species of the *Idas* group are always found on fatty cetacean bones. A recent publication on the taxonomy of the genus *Idas*, based on analysis of the bibliography and the application of the ICZN (International Commission on Zoological Nomenclature) advice, suggested that the genus *Idas* Jeffreys 1876 should be replaced by *Idasola* Iredale, 1915 (Mietto et al., 2019).

Figure 6. *Idas* cf. *cylindricus* found attaced to toothed whale bone.

Musculus laevigatus* (Mytilidae)** (Figure 7) is not accepted as a valid scientific name in WoRMS, where it is considered as a synonym of ***Musculus discors. Nevertheless, we prefer to use both names because of the phenotypes of the shell (smooth and striated posterior end, large and small size respectively). Some questions regarding the classification are yet unanswered, and the discussion remains open, as this taxonomic update from WoRMS underlines: "*There has been quite a lot of discussion about the systematics and nomenclature*

of M. discors*, especially concerning the status of* Mytilus discors *Linnaeus, 1767 s.s.,* Modiola laevigata *Gray, 1824,* Modiola substriata *Gray, 1824 and* Modiolaria corrugata *Stimpson, 1851. Sometimes, all these forms are considered as independent species. But frequently, one or more of these species could be seen as a variety or a subspecies, especially* Musculus discors*. Until now, there is no good solution for this problem. "*
(http://www.marinespecies.org/aphia.php?p=taxdetails&id=140472 13.02.2021).

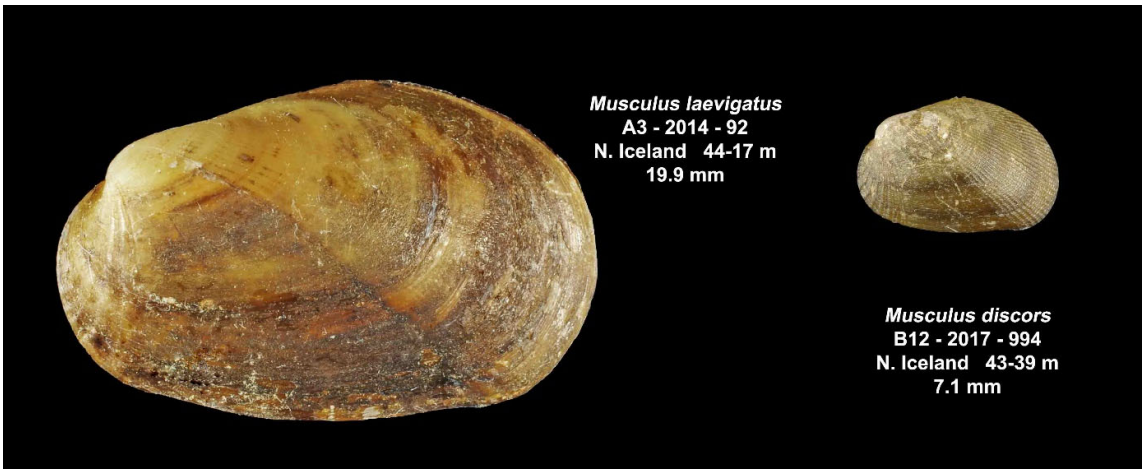


Figure 7. *Musculus laevigatus* and *Musculus discors*.

Teredinidae. A piece of sunken wood bored by **Teredinidae** (calcareous tubes present) found at station D4-2014-53 (S.W. Iceland 188–211 m) did not reveal the presence of any piece of valves or pallets enabling identification of the boring bivalve and was reported as such: Teredinidae. In this report, Teredinidae species are not reported on maps.

Gastropoda

Buccinidae is the most abundant family (in biomass and number of species) present in the MFRI trawls. It is a challenge to identify specimens belonging to some genera within this family due to the huge number of synonyms or different names and iconography published thorough the centuries. All identifications were discussed with Koen Fraussen, Belgian world specialist on this family.

In particular, it can be quite difficult to identify specimens belonging to the genus *Buccinum* to a species level and most specialists agree that a revision would be necessary. Intraspecific variations are so frequent that some specimens collected are only provisionally assigned to a species name. It is therefore important to obtain more samples to refine the determinations, pending a more complete revision.

For example, one specimen of *Buccinum* sp. collected at station A10-2013-593 is not yet determined to species despite the shell being in a good condition. Also, some very light-coloured empty shells of the "*Buccinum finmarkianum*-type" found at station TL2-2014-78 (1216–1281 m) are tentatively assigned to ***Buccinum kjennerudae*** (Figure 8).

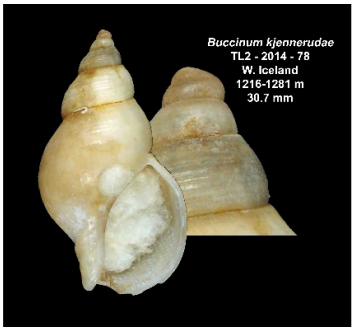


Figure 8. *Buccinum kjennerudae*

Among the specimens of ***Neptunea despecta*** caught, the majority is represented by the form *fornicata* (Figure 9, left) which is quite typical for Icelandic waters. Nevertheless, two specimens of deeper water (called special forms in the report) from station A10-2013-593 (315–304 m) and A10-2013-618 (563–671 m) (Figure 9, right) do not correspond to the typical Icelandic *N. despecta* (absence of strong vertical folds). Some authors consider that *N. despecta fornicata* could be a separated species.

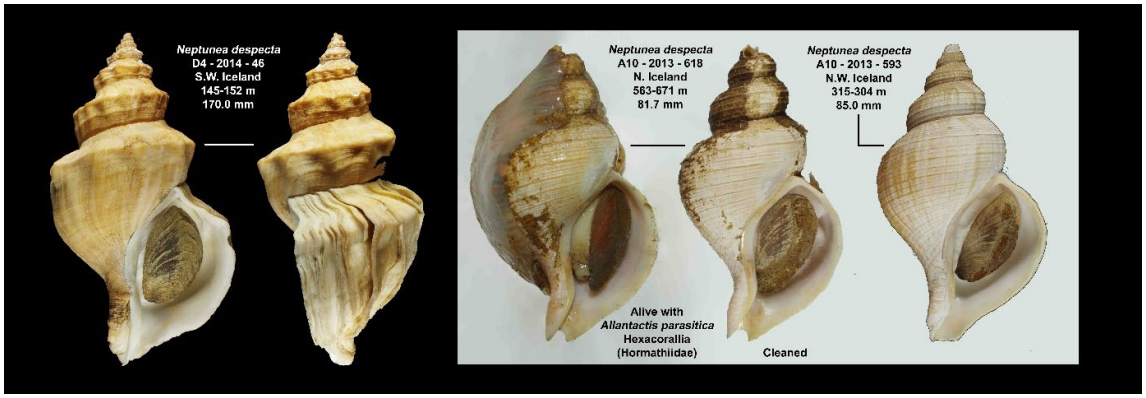


Figure 9. *Neptunea despecta* form *fornicata* (left) and the special form less typical for Icelandic waters (right).

Beringius turtoni and ***Beringius ossiania*** are today considered as the same species despite their quite different external aspect. The specimen collected at station A3-2014-71 (190–207 m) (Figure 10, left) corresponds to the *turtoni* form and the specimen collected at station A10-2013-677 (575–544 m) (Figure 10, right) to the *ossiania* form.

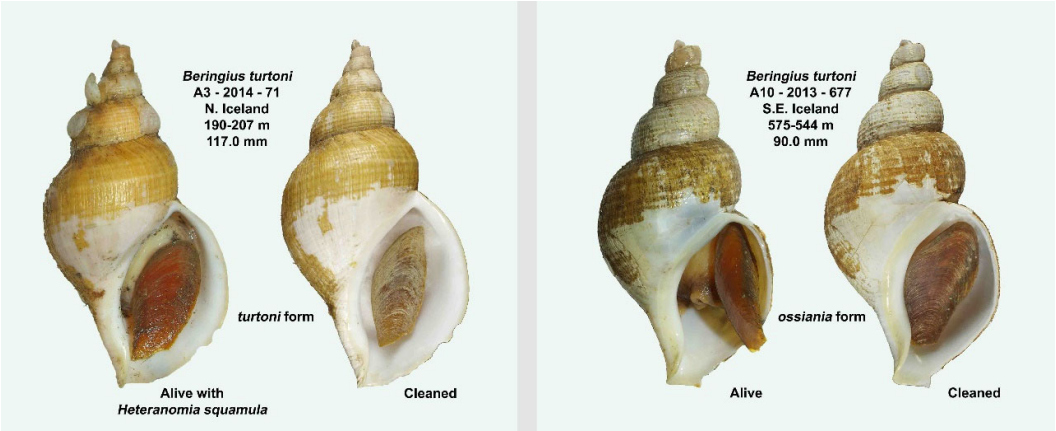


Figure 10. *Beringius turtoni* - *turtoni* form (left) and *ossiania* form (right).

For the specimens belonging to the genus *Colus* we prefer the name ***Colus glaber*** for the Icelandic specimens rather than *Colus gracilis* (da Costa, 1778) which is the accepted scientific name in the WoRMS registry. *Colus glaber* present in Iceland and in Norway have lesser convex whorls with finer and more numerous spiral riblets compared to the traditional form of *Colus gracilis*. It was "probably" synonymised with *Colus gracilis* by Fretter & Graham (1984) and all "forms" are described in Bouchet & Warén (1985: 228). Variations of profile and sculpture in specimens from Iceland, Faroe Islands and Celtic Sea are illustrated (Figure 11). The shells found in Iceland correspond to the "form" *glaber*. The "form" *gracilis* was not found in the surveys despite the mention of Óskarsson (1982). Perhaps DNA comparisons could solve this synonymy.

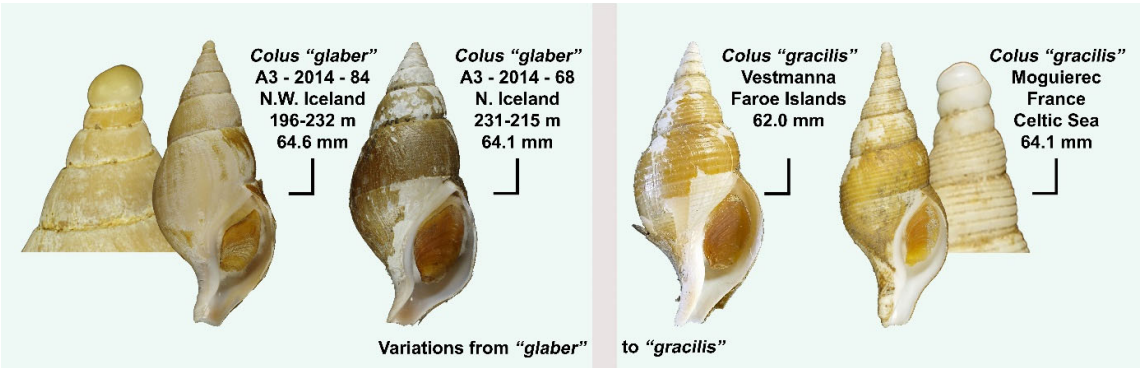


Figure 11. Variations from *Colus glaber* to *Colus gracilis*.

In WoRMS the two following species are considered as synonyms: ***Buccinum nivale*** Friele, 1882 and ***Buccinum alicei*** Dautzenberg & Fischer, 1912 with the name *B. nivale* registered as the accepted version. Nevertheless, we notice some discrepancies in the original description of these two species (Figure 12). *B. nivale* has a smooth periostracum (Friele 1882:32) while

B. alicei has a setosous (velvet) periostracum (Dautzenberg & Fisher 1912: 136). More material needs to be collected to definitively decide if this is a single or two different species. In this report we report them as two separated species.

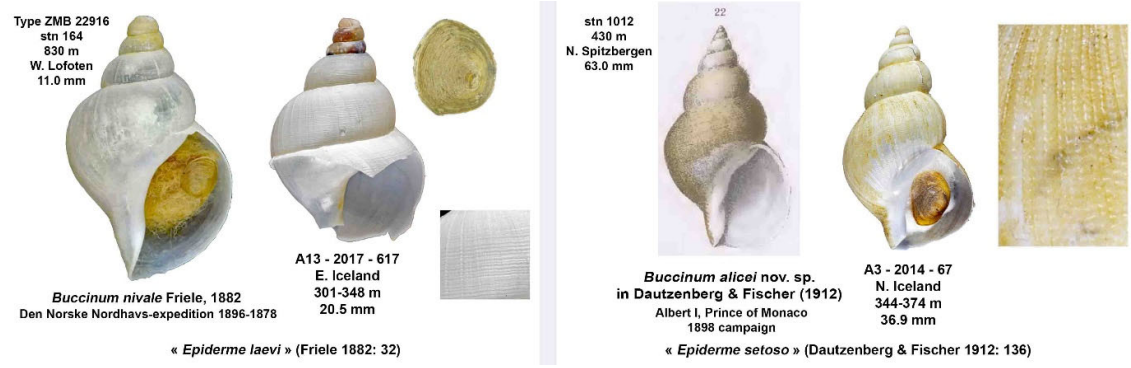


Figure 12. *Buccinum nivale* (left) and *Buccinum alicei* (right).

***Haliella stenostoma* (Eulimidae)** was found alive among the gizzard plates of a ***Scaphander lignarius* (Scaphandridae)** at station A3-2014-47 (249–251 m) (Figure 13). The specimen was still bearing its operculum. This illustrates part of a trophic chain: a large mollusc eating a smaller one (Delongueville & Scaillet 2014).

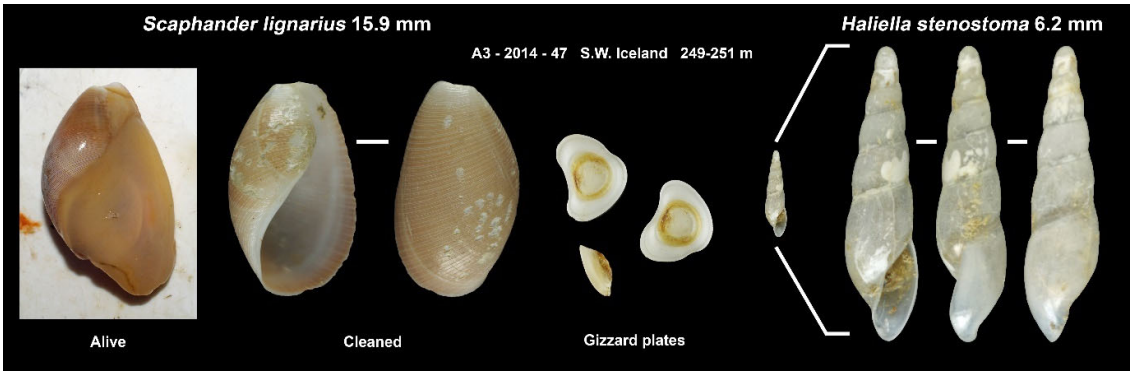


Figure 13. *Scaphander lignarius* and *Haliella stenostoma* that was found among the gizzard plates of the former species.

Three specimens of ***Propebela* sp. (Mangeliidae)** were found alive at station A2-2015-90 (371–341 m) and a fourth in a haddock stomach (empty specimen) at station A2-2015-53 (112–107 m). The latter was subsequently attributed to ***P. nobilis***. One specimen from station A2-2015-90 (sp. 1) shows affinities with ***P. exarata*** (profile, number of axial ribs), while the last two (sp. 2 and sp. 3) also show characters relating them to ***P. nobilis*** (fewer axial ribs). They are reported as *Propebela* sp. (Figure 14). This illustrates the difficulty in determining Mangeliidae of the North Atlantic and the need to obtain more intact specimens to validate differences between species and to evaluate intraspecific variations. This genus is not reported here in the maps.

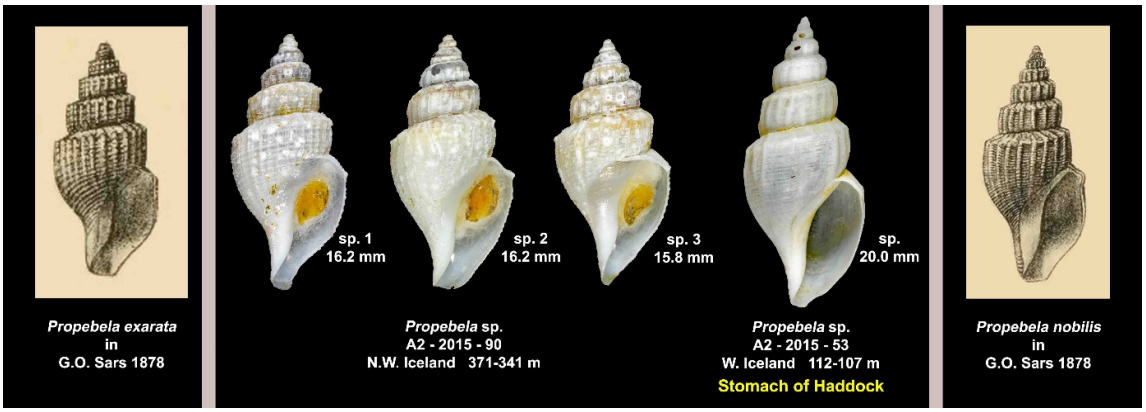


Figure 14. *Propebela exarata* (left), *Propebela* spp. (middle) and *Propebela nobilis* (right).

A specimen of Naticidae completely crushed except for the calcareous operculum, reported as *Cryptonatica* sp in the station A10-2013-627 (358–347 m) does not appear on the maps.

Associations

Fish stomach contents [*Anarhichas* (wolffish), *Hippoglossoides platessoides* (long rough dab) and *Melanogrammus aeglefinus* (haddock)] were of great interest, enabling access to very small species of Bivalvia such as: *Nuculana pernula, Bathyarca pectunculoides, Dacrydium ockelmanni, Similipecten similis, Palliolum tigerinum, Limatula gwyni, Thyasira obsoleta, Tellimya tenella, Timoclea ovata, Abra prismatica, Abra nitida* (Figure 15) and Gastropoda such as: *Euspira montagui, Boreotrophon clathratus, Boreotrophon truncatus, Volutomitra groenlandica, Scaphander punctostriatus, Laona quadrata, Hermania scabra,* (Figure 16), *Propebela* sp. and *Antalis entalis* of the Scaphopoda.

Figure 15. Small Bivalvia species collected in fish stomachs.

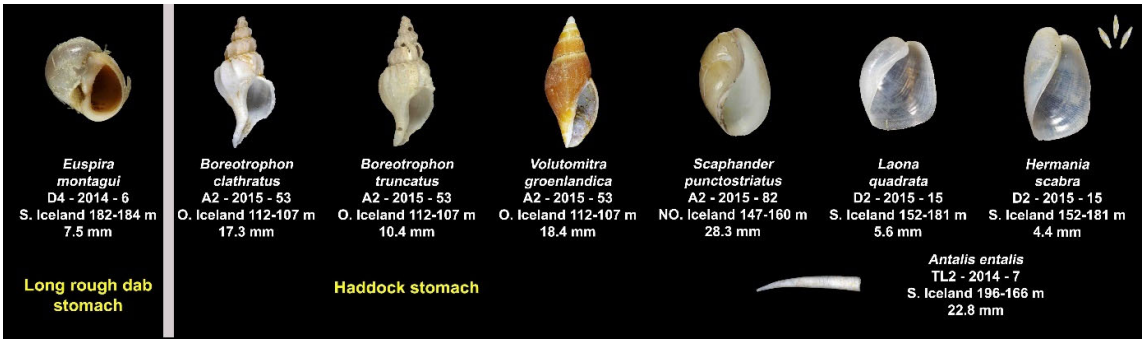


Figure 16. Small Gastropoda and Scaphopoda species collected in fish stomachs.

Three samples of sweep ups from stations A3-2014-23, 39 and 40 (375–405 m, 205–154 m, 210–215 m respectively) were also of major interest because independent of the mesh size of the nets, the specimens were protected by a mass effect.

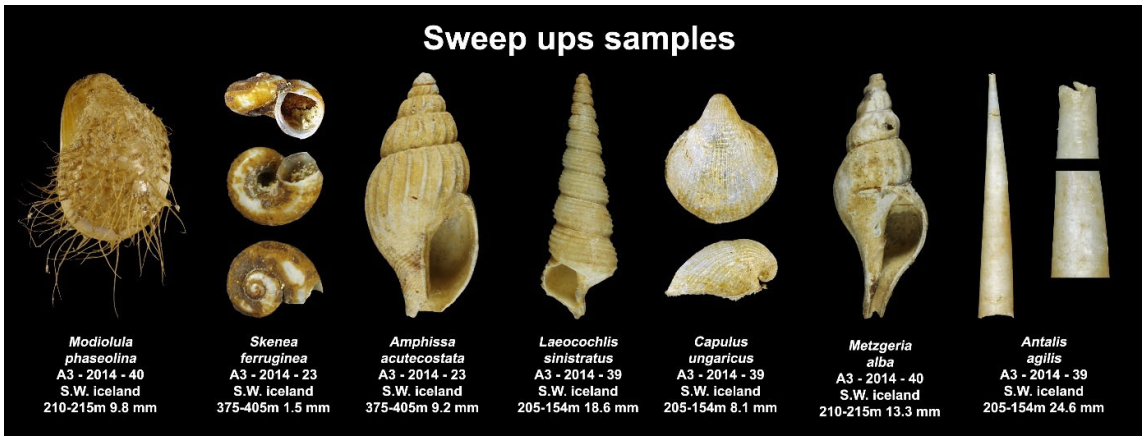


Figure 17. Specimens collected in sweep ups.

Bivalvia collected in sweep ups were: *Asperarca noduloda, Heteranomia squamula, Modiolula phaseolina, Delectopecten vitreus, Palliolum striatum, Palliolum tigerinum, Astarte subaequilatera, Parvicardium minimum* and *Hiatella arctica*.

Gastropods collected were: *Skenea ferruginea, Laeocochlis sinistrata, Capulus ungaricus, Amphissa acutecostata, Metzgeria alba* and *Scaphander lignarius*.

One specimen of *Antalis agilis* (Scaphopoda) was also present. Some of these shells are illustrated in Figure 17.

Polyplacophora

Hanleya nagelfar and *Hanleya hanleyi* (Hanleyidae) (Figure 18) are reported here as two separated species. *H. nagelfar* is a sponge-feeder of large size (up to 8 cm) living in northern deep-waters. At stations TL2-2014-38 (1048–1024 m) and TL2-2014-67 (1098–1046 m), it was found together with a large piece of sponge. *H. hanleyi* is of smaller size (up to 2 cm), mainly found in Iceland on white coral (*Desmophyllum pertusum* a.o.) up to shallow waters. It has also a larger southern geographic distribution. Recently, Sirenko et al. (2016) disputed these ecological factors as discriminatory elements and put the two species in synonymy.

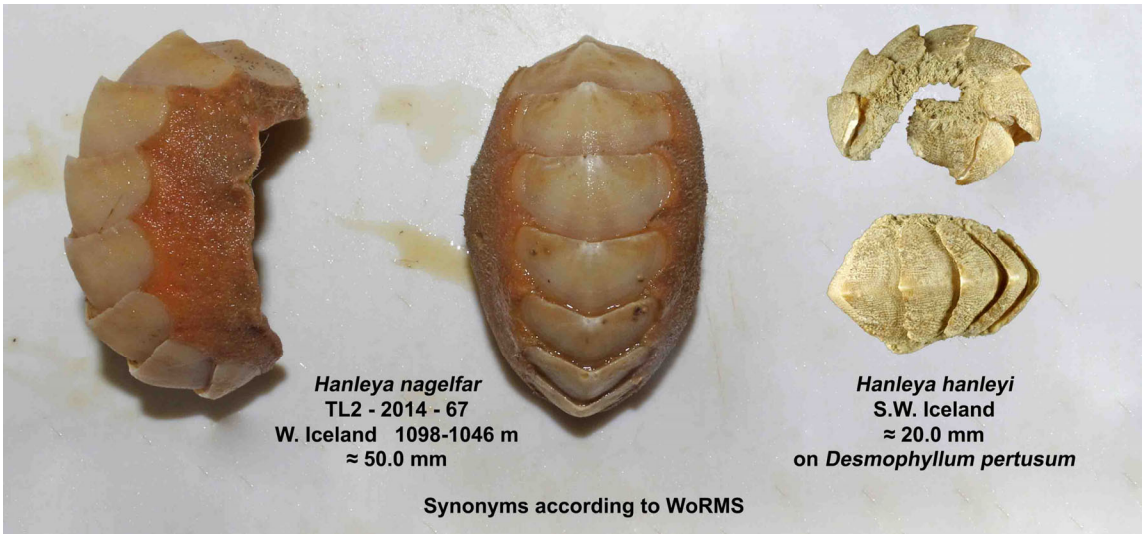


Figure 18. *Hanleya nagelfar* and *Hanleya hanleyi*.

Another Polyplacophora, *Boreochiton ruber* (Tonicellidae) was found within a weed holdfast at station A3-2014-92 (44–17 m).

Other specimens collected

Three species of Brachiopoda were identified: *Macandrevia cranium, Terebratulina retusa* (Figure 19) and ***Novocrania anomala***. In addition, the scaphopod-like annelid tubes: ***Ditrupa arietina* (Annelida),** the barnacle ***Chirona hameri* (Cirripedia)** and the hydrozoan ***Tubularia indivisa* (Cnidaria)** were identified.

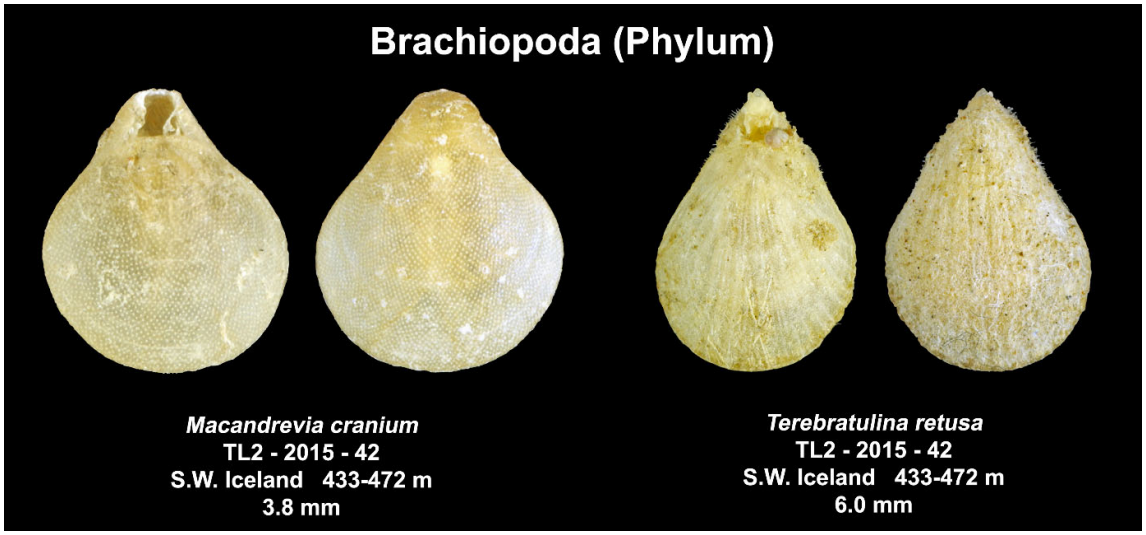


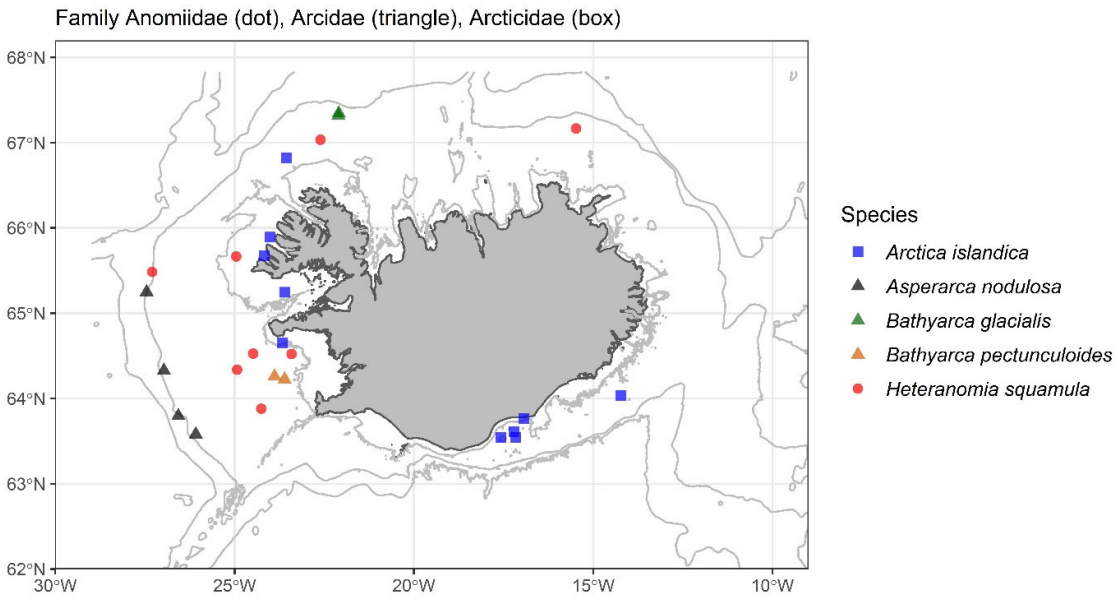
Figure 19. *Macandrevia cranium* and *Terebratulina retusa* belonging to Brachiopoda.

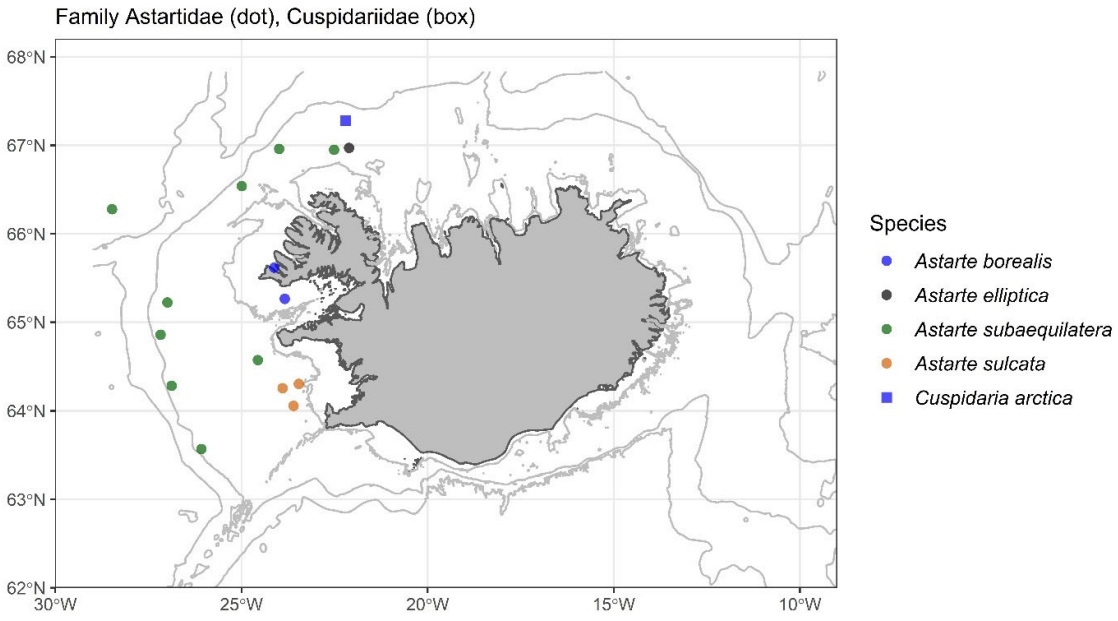
A table with the full names of all molluscs identified, along with the comparative vernacular and scientific names published in Óskarsson (1982), is presented in Appendix 1.

Maps showing species occurrences

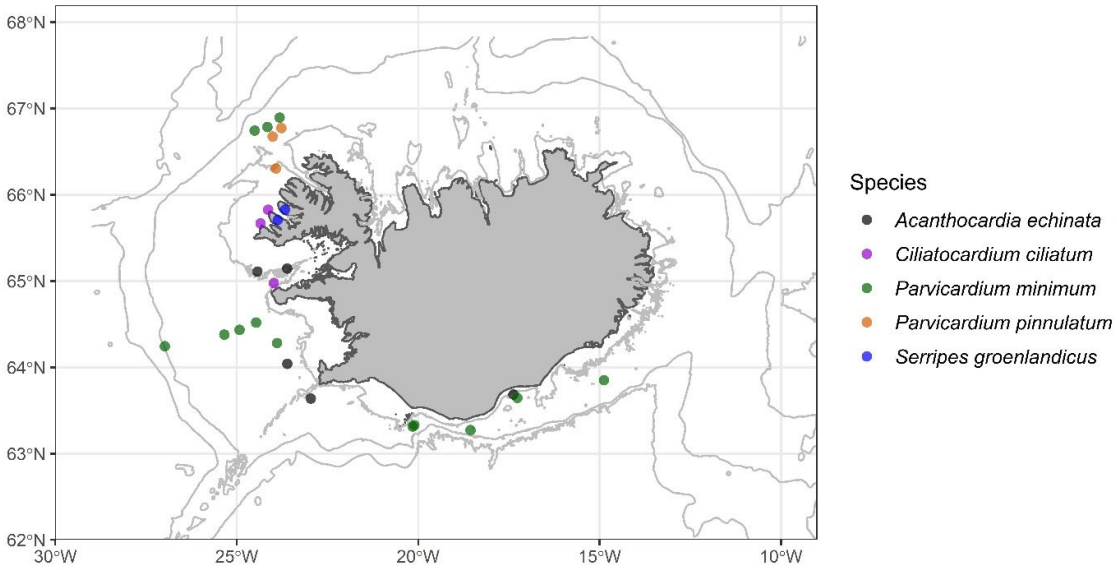
Bivalvia

The occurrences of Bivalvia for each of the 46 species within the 22 families is shown in Figure 20 (nine maps).

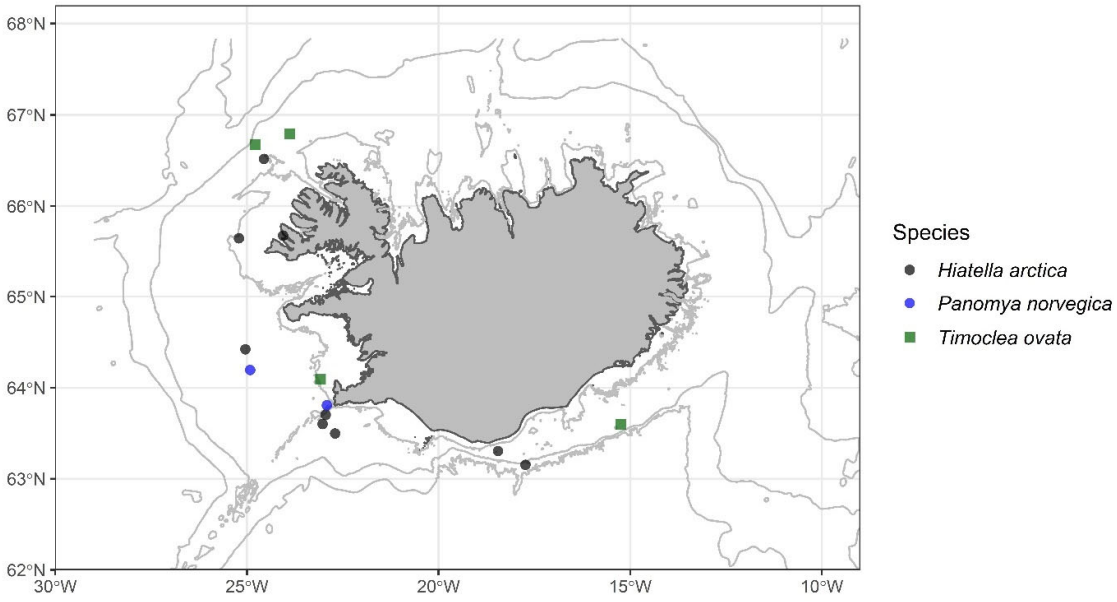

Family Anomiidae (dot), Arcidae (triangle), Arcticidae (box)
68°N
67°N
66°N
65°N
64°N
63°N
62°N
30°W
25°W
20°W
15°W
10°W
Species
Arctica islandica
Asperarca nodulosa
Bathyarca glacialis
Bathyarca pectunculoides
Heteranomia squamula


Family Astartidae (dot), Cuspidariidae (box)
68°N
67°N
66°N
65°N
64°N
63°N
62°N
30°W
25°W
20°W
15°W
10°W
Species
Astarte borealis
Astarte elliptica
Astarte subaequilatera
Astarte sulcata
Cuspidaria arctica

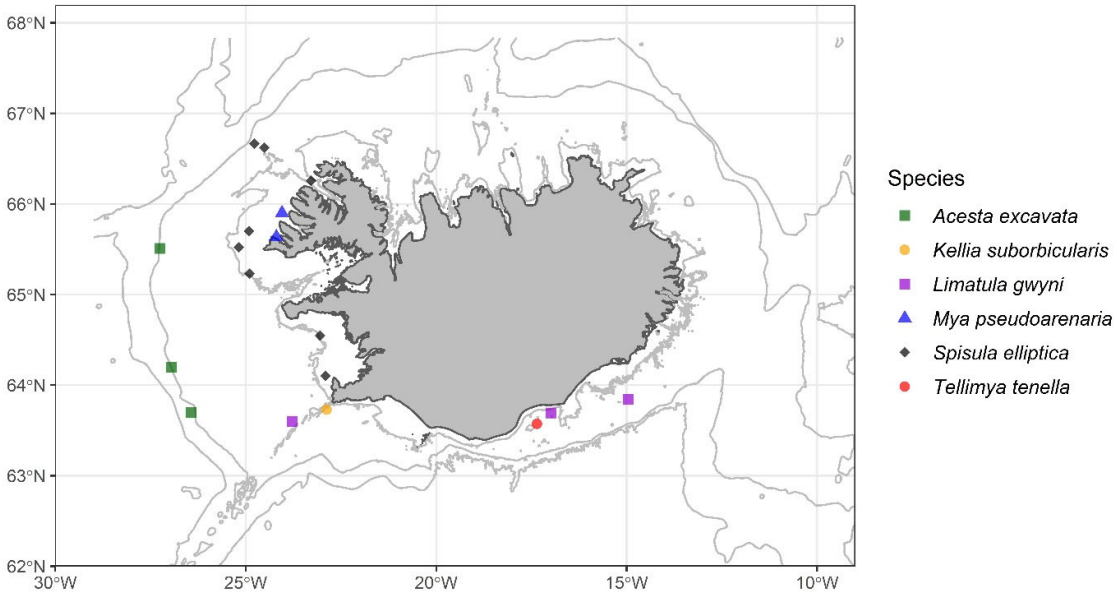
Family Cardiidae



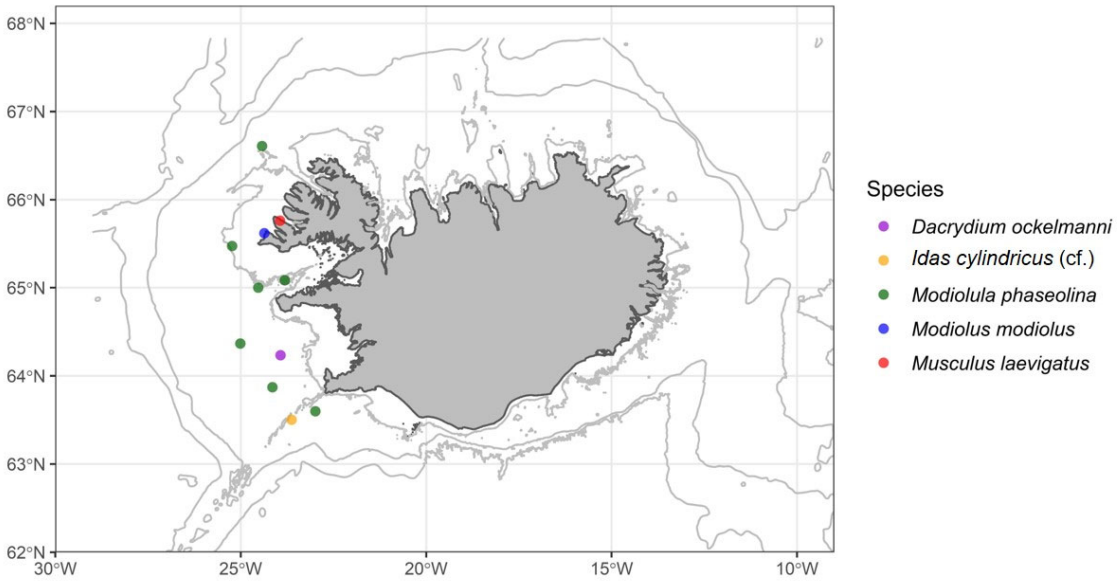
Family Hiatellidae (dot), Veneridae (box)



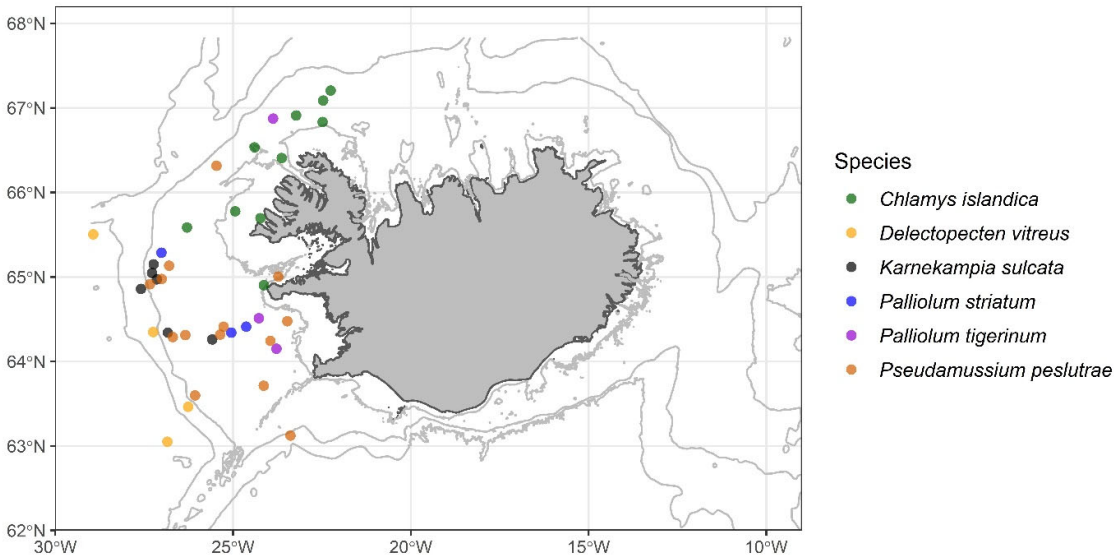
Family Lasaeidae (dot), Limidae (box), Mactridae (diamond), Myidae (triangle)



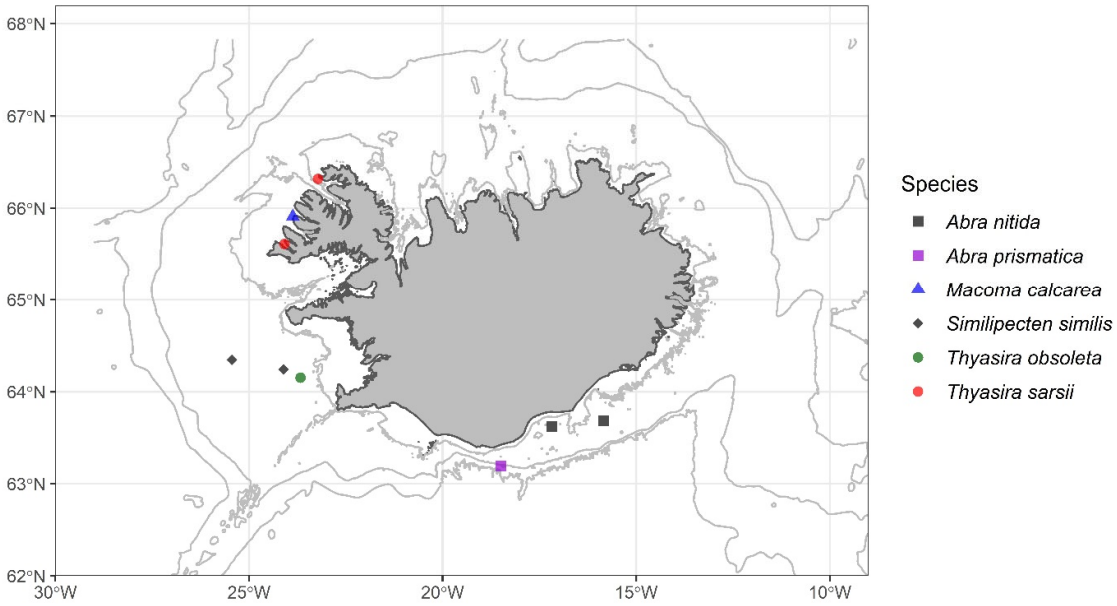
Family Mytilidae



Family Pectinidae



Family Propeamussiidae (diamond), Semelidae (box), Tellinidae (triangle), Thyasiridae (dot)



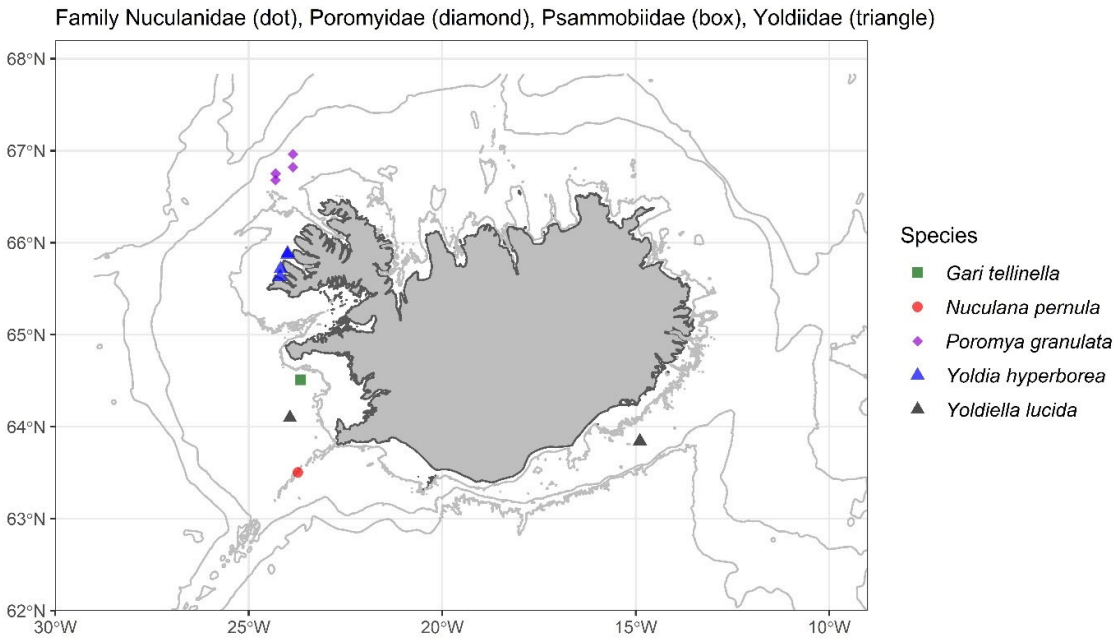
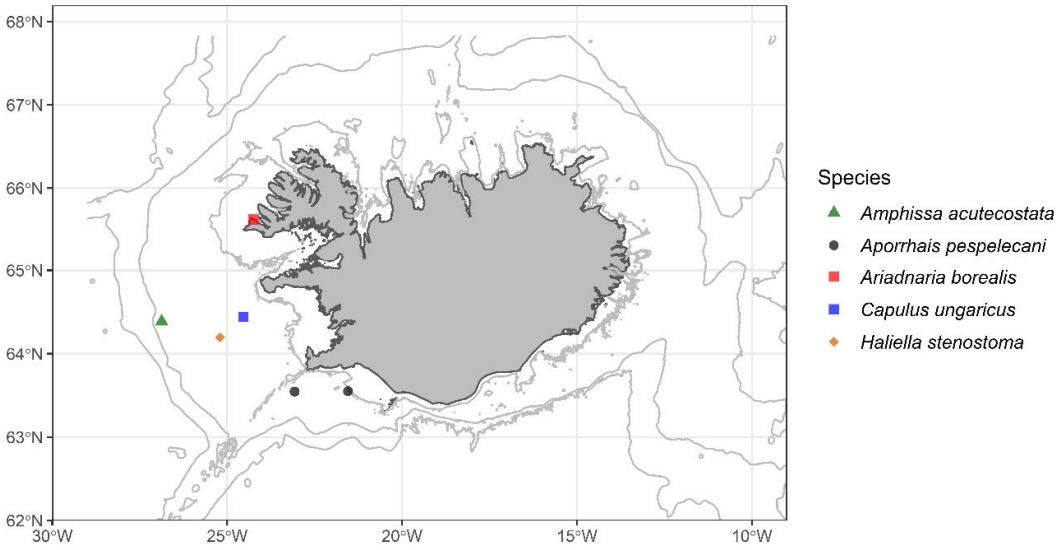


Figure 20. Maps showing the occurrences of the 46 Bivalvia species within the 22 families collected in the six surveys in 2013 – 2015.

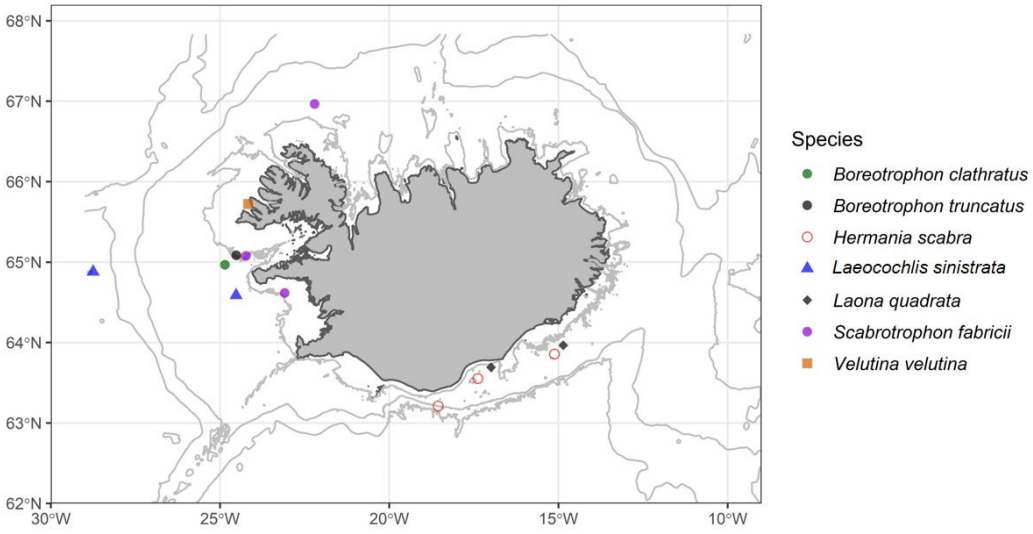
Gastropoda

A total of 45 species belonging to 17 families of Gastropoda were found around Iceland in the six surveys in 2013-2015 (table 1., Figure 21 and 22). The occurrences of 24 species belonging to 16 families is shown in Figure 21 (4 maps). The occurrences of the 21 species belonging to the family Buccinidae is shown in Figure 23 (6 maps).

Family Aporrhaidae (dot), Capulidae (box), Columbellidae (triangle), Eulimidae (diamond)



Family Laonidae (diamond), Muricidae (dot), Newtoniellidae (triangle), Philinidae (open circle), Velutinidae (box)



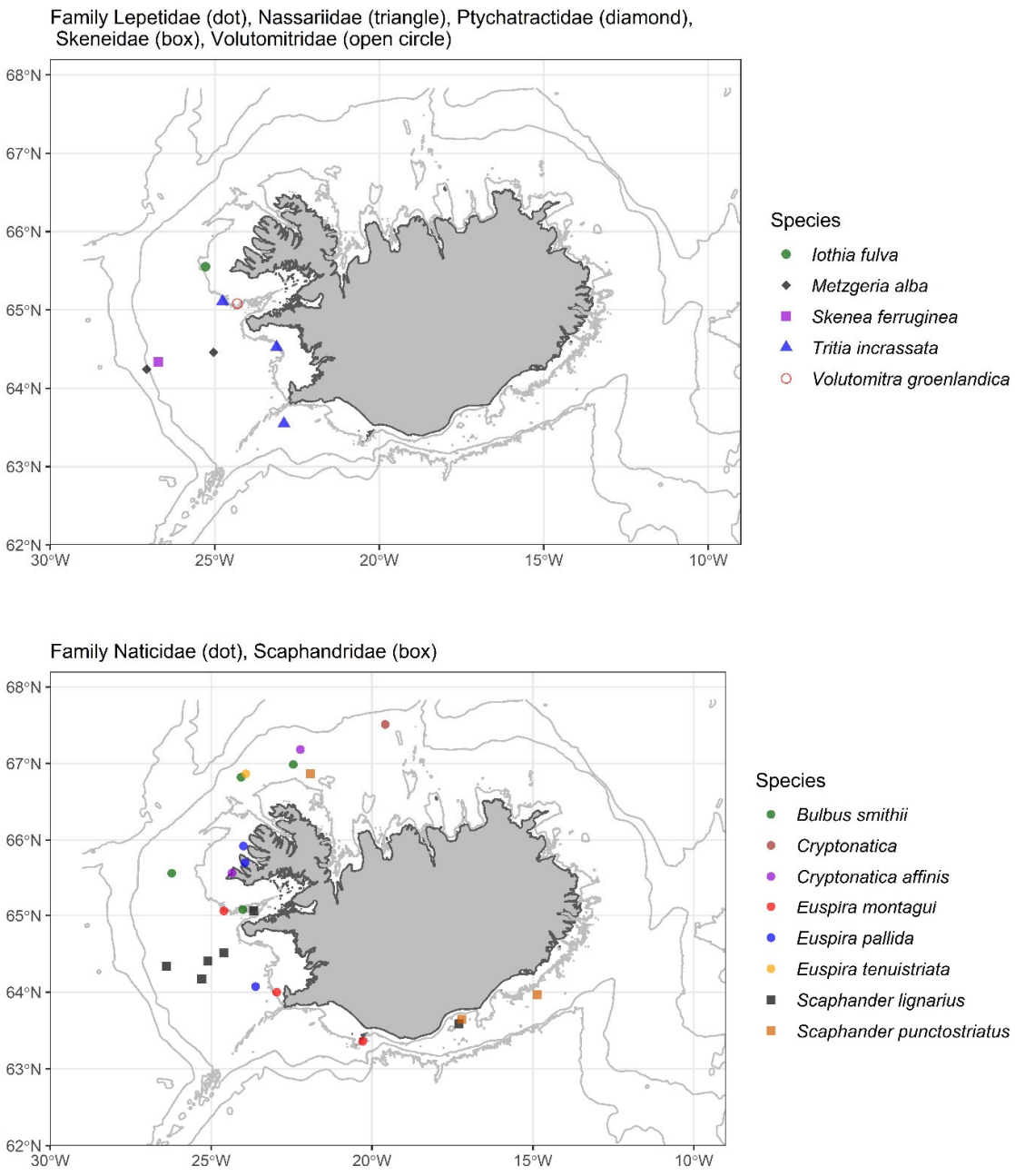
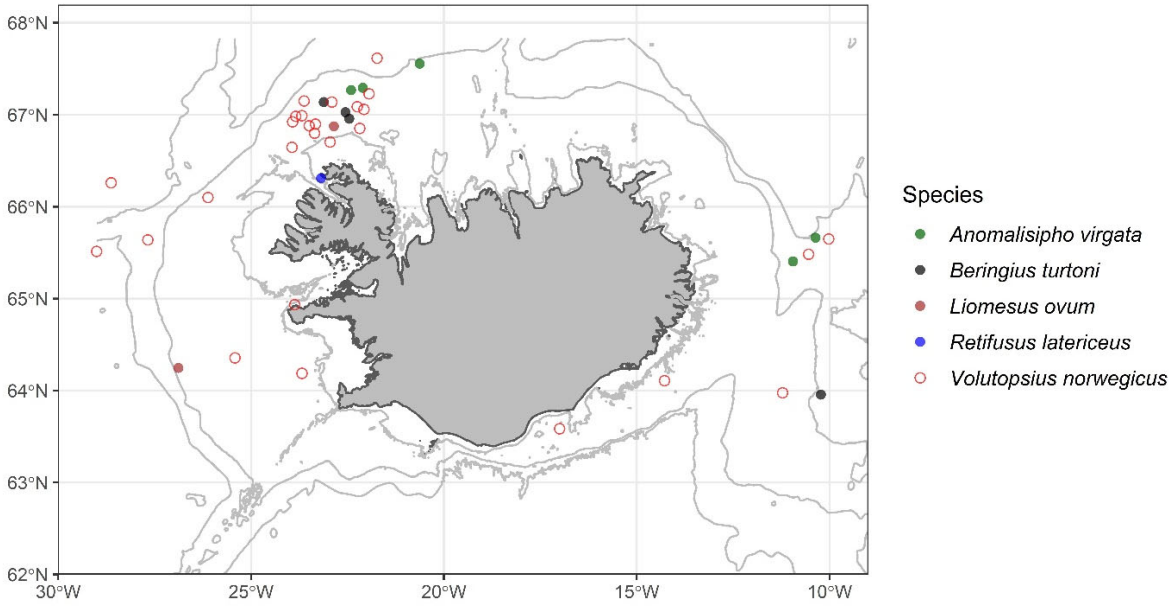
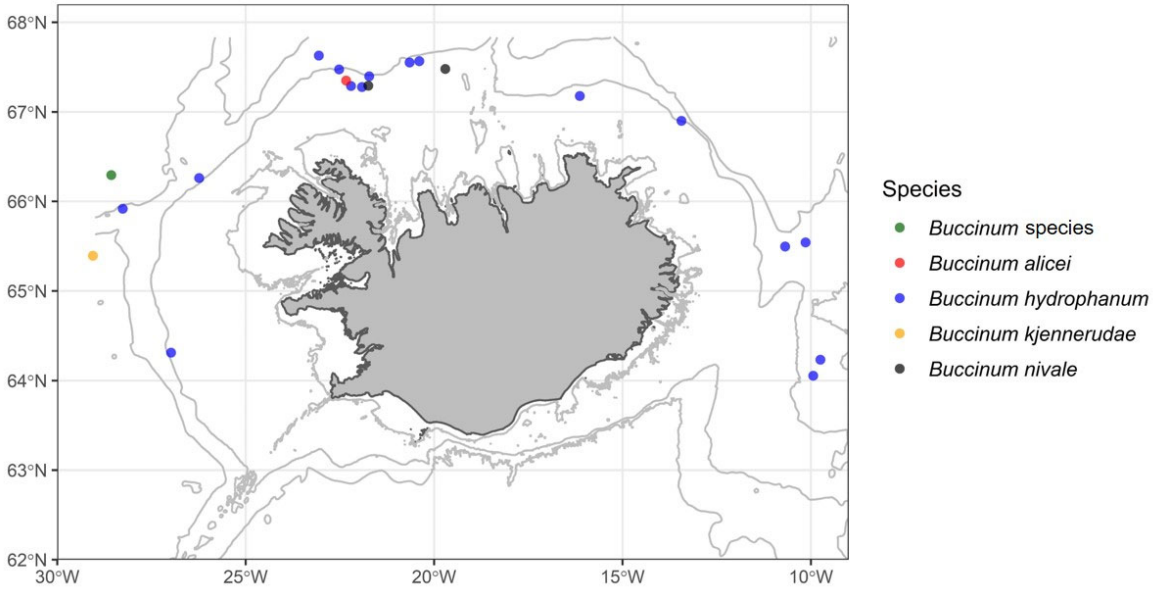


Figure 21. Maps showing the occurrences of the 24 species belonging to 16 families of Gastropoda collected in the six surveys in 2013 – 2015.

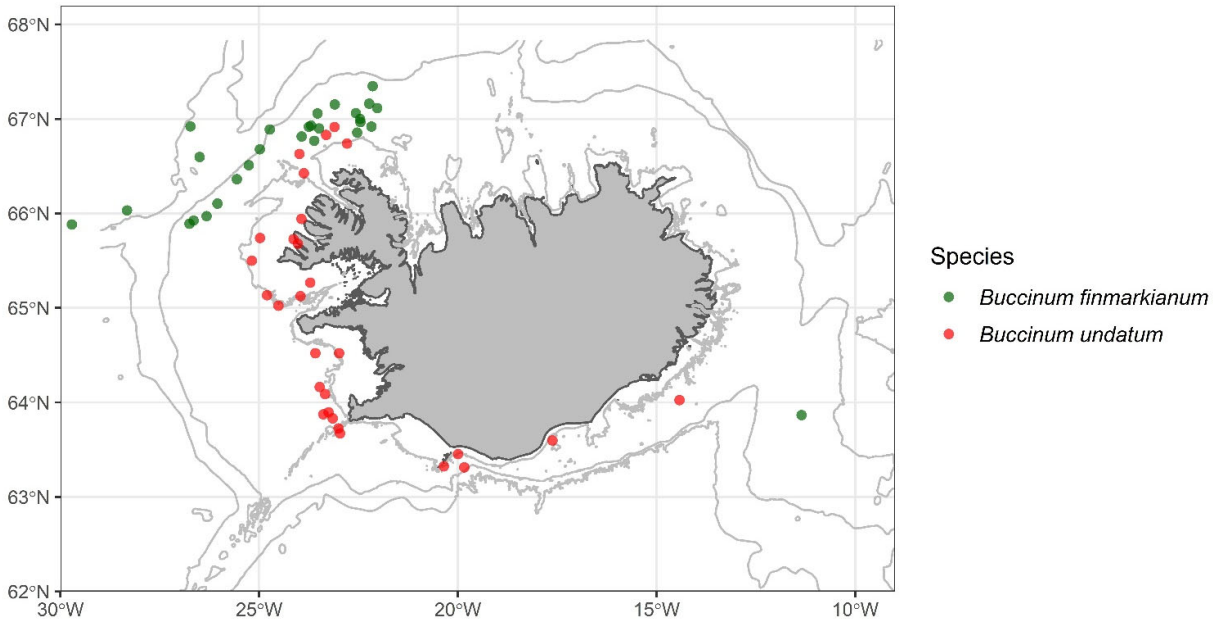
Family Buccinidae



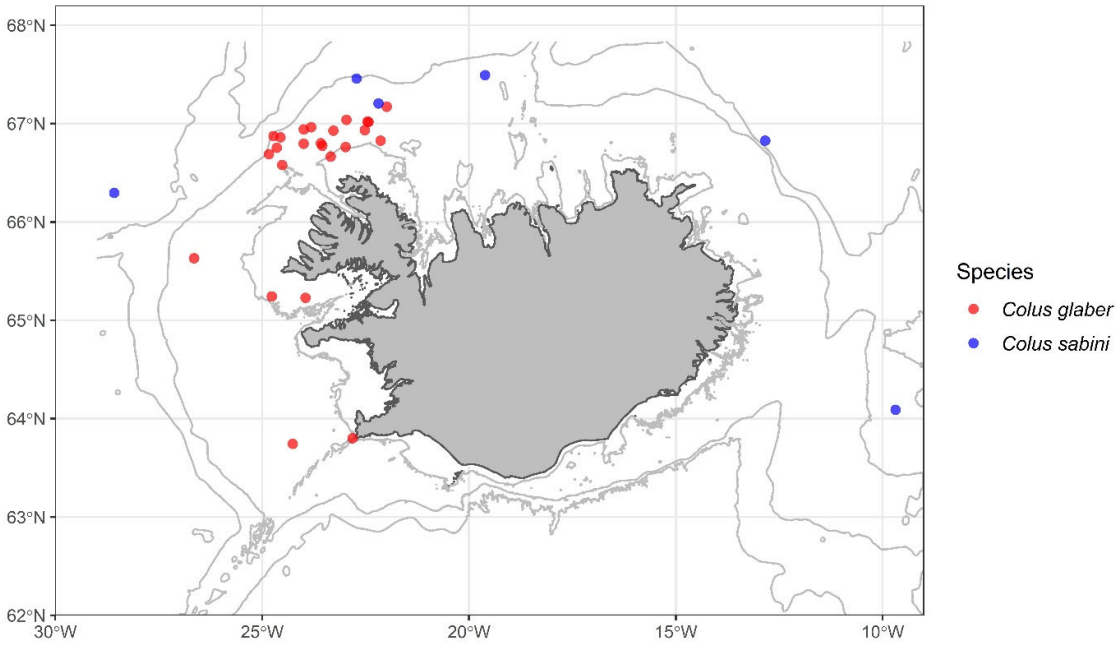
Family Buccinidae

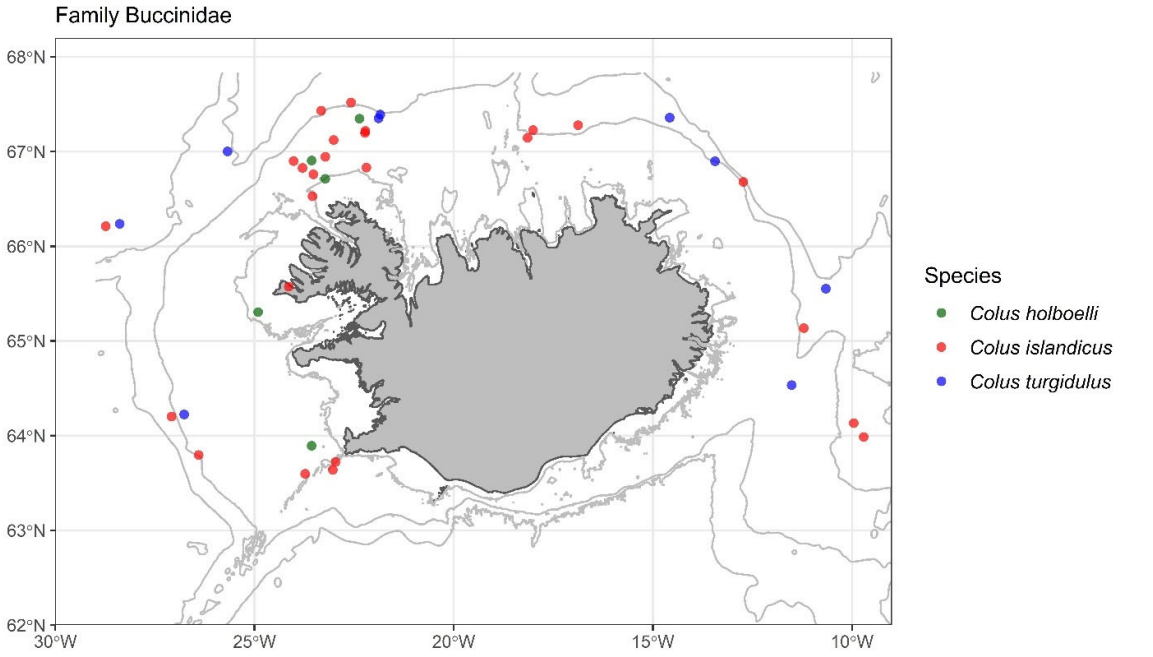


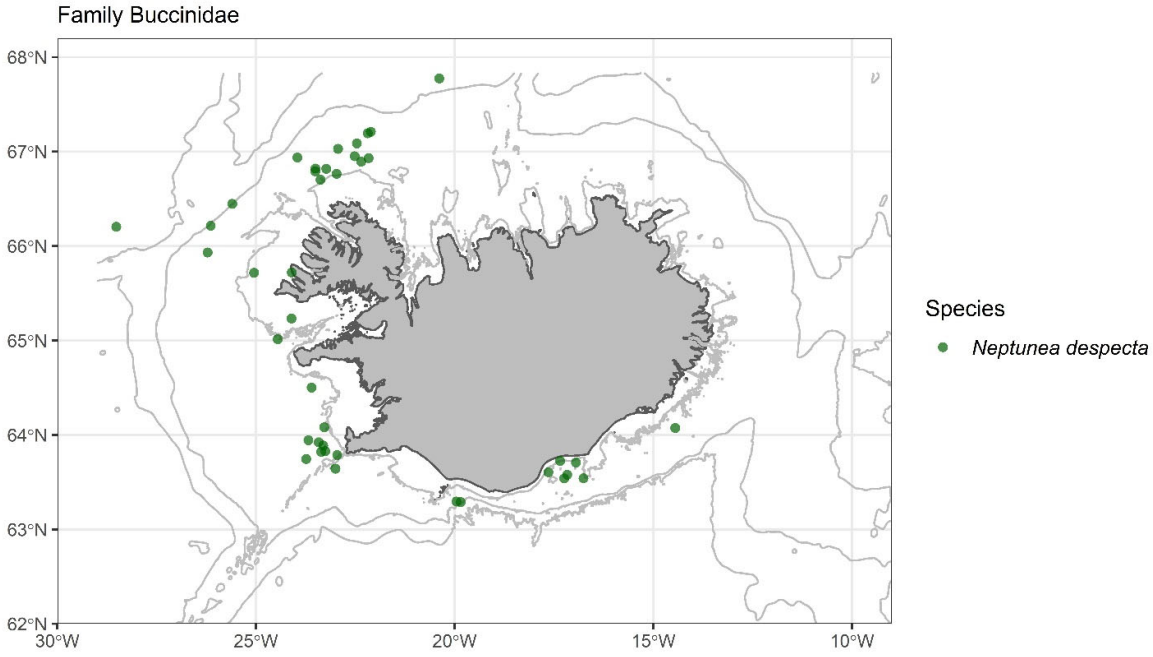
Family Buccinidae



Family Buccinidae




Family Buccinidae
68°N
67°N
66°N
65°N
64°N
63°N
62°N
30°W
25°W
20°W
15°W
10°W
Species
Colus holboelli
Colus islandicus
Colus turgidulus


Family Buccinidae
68°N
67°N
66°N
65°N
64°N
63°N
62°N
30°W
25°W
20°W
15°W
10°W
Species
Neptunea despecta

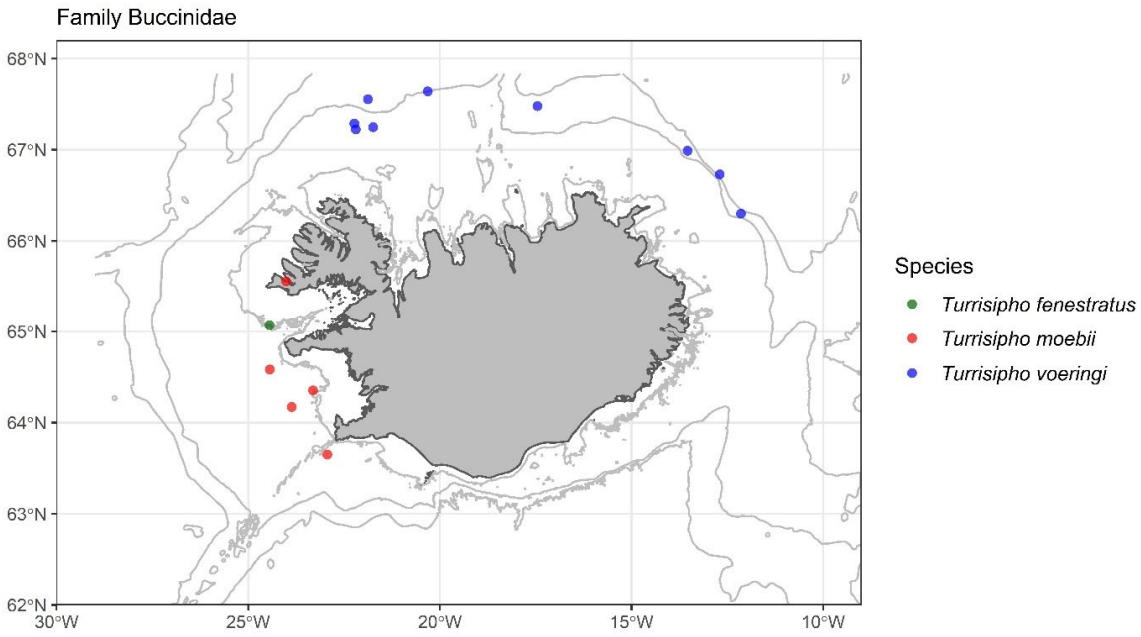


Figure 22. Maps showing the occurrences of the 21 species belonging to the family Buccinidae collected in the six surveys in 2013 – 2015.

Polyplacophora and Scaphopoda

The two species of the Polyplacophora were collected at three stations in two surveys and the two species of Scaphopoda were collected at two stations in the same surveys (Table 2, Figure 23).

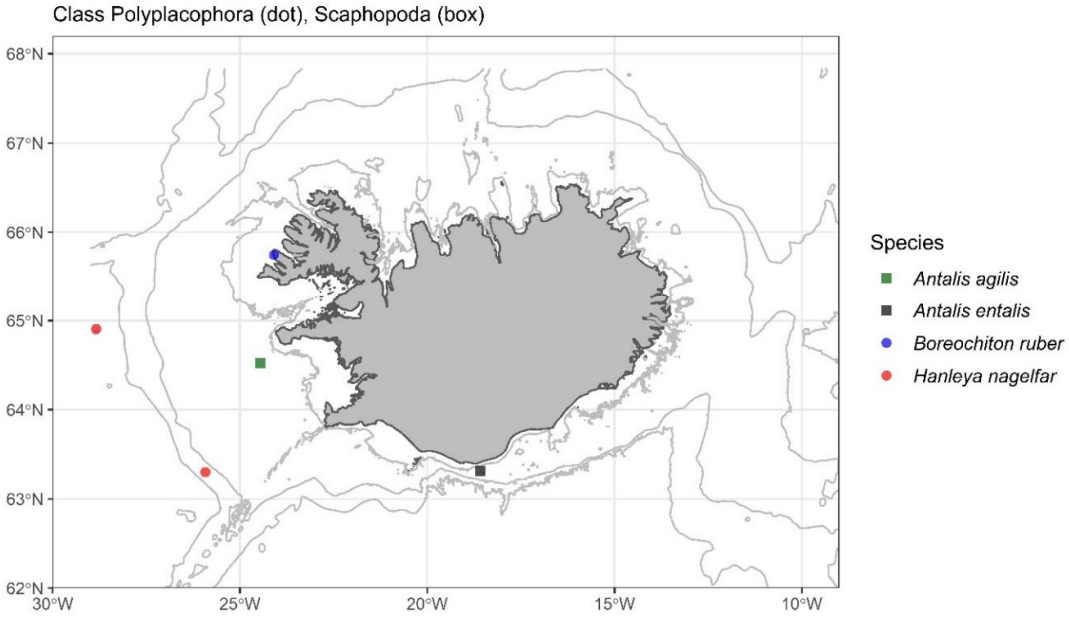


Figure 23. Map showing the occurrences of the four species collected belonging to class Polyplacophora and class Scaphopoda in the six surveys in 2013 – 2015.

Discussion

This report includes the findings of Mollusca specimens collected opportunistically during six fisheries surveys around Iceland. It does not represent a total list of species found in these tows or all stations sampled in the surveys. As the sampling was not conduced systematically, and the sampling method was not designed to sample small invertebrates, the data represents only species-presence. However, the number of species of Bivalvia and small Gastropoda was higher than foreseen due to analysis of fish stomach content and specimens associated with sweep ups. Samples were collected from various surfaces, such as whale bone, wood, sponge or coral.

Conclusion

To obtain the most precise possible overview of the Icelandic malacofauna all possible ecological niches must be investigated. Doing so could answer many unsolved questions regarding habitats and feeding habits of Icelandic molluscs.

Acknowledgments

We would like to thank Koen Fraussen (Aarschot, Belgium) for the discussions concerning the collected Buccinidae. We also like to express our gratitude to Hrönn Egilsdóttir and Eric dos Santos for their detailed and constructive review of the report.

References

Bouchet, P. & Warén, A. (1985). Revision of the northeast Atlantic bathyal and abyssal Neogastropoda excluding Turridae (Mollusca, Gastropoda). *Bollettino Malacologico*, suppl.1: 123–296.

Dautzenberg, Ph. & Fischer, H. (1912). Mollusques provenant des campagnes de l'Hirondelle et de la Princesse-Alice dans les Mers du Nord. In*: Résultats des Campagnes Scientifiques accomplies sur son yacht par Albert I*^{er} *Prince Souverain de Monaco.* Fascicule XXXVII. Monaco: 629 pp., pls 11.

Delongueville, C. & Scaillet, R. (2014). *Haliella stenostoma* (Jeffreys, 1858) - Eulimidae - dans la cavité gastrique de *Scaphander lignarius* (Linnaeus, 1758) - Scaphandridae. Récolte en Islande*. Novapex / Société,* 15(3): 46–48.

Delongueville, C. & Scaillet, R. (2019). *Idas* cf. *cylindricus* Pelorce & Poutiers, 2009 (Bivalvia: Mytilidae) in Icelandic waters. *Novapex,* 20(3): 93–96.

Fretter, V. & Graham, A. (1984). The Prosobranch Molluscs of Britain and Denmark. Part 8 - Neogastropoda. *Journal of Molluscan Studies*, suppl. 15: 435–556.

Friele, H. (1882). Mollusca. I. Buccinidæ. In: *Den Norske Nordhavs-Expedition 1876–1878*. Zoologi. Christiania: 38 pp., pls 6.

Huber, M. (2010). *Compendium of Bivalves.* Tome I. ConchBooks Ed: 901 pp.

Madsen, F.J. (1949). *The zoology of Iceland: Marine Bivalvia*, vol 4(63), Ejnar Munksgraad, Copenhagen & Reykjavik: 116 pp.

Mietto, P., Quaggiotto, E., Giusti, F. & Sbrana, C. (2019). Taxonomic and nomenclatural notes on the genus *Idas* (Bivalvia: Mytilidae). *Bollettino Malacologico*, 55: 116–125.

Óskarsson, I. (1982). *Skeldýrafána Íslands. Samlokur í sjó. Sæsniglar með skel.* Prentsmiðjan Leiftur HF, Reykjavik: 351 pp.

Sars, G.O. (1878). *Bidrag til kundskaben om norges arktiske faune: 1. Mollusca Regionis Arcticae Norvegiae: oversigt over de i norges arktiske region forekommende bløddyr*. Christiana, Brögger: 466 pp., pls 52.

Sirenko, B., Sigwart, J. & Dell'Angelo, B. (2016). *Hanleya hanleyi* (Bean in Thorpe, 1844) (Mollusca, Polyplacophora) and the influence of the Gulf Stream System on its distribution. *Ruthenica*, 26(2): 57–70.

Thorson, G. (1941). *The Zoology of Iceland: Marine Gastropoda Prosobranchiata*, vol 4(60), Ejnar Munksgraad, Copenhagen & Reykjavik: 150 pp.

WoRMS Editorial Board. (2021). World Register of Marine Species. Available from http://www.marinespecies.org at VLIZ. Accessed 2021-03-12. doi:10.14284/170

Appendix 1. List of mollusc species (Bivalvia, Gastropoda, Scaphopoda and Polyplacophora) collected in Iceland during six groundfish and *Nephrops* surveys in 2013-2015, along with corresponding Icelandic vernacular names presented in Óskarsson (1982).

Systematic classification		Bivalvia		Óskarsson's classification	Bivalvia	
Family	*Genus*	*species*	Authors	*Genus*	*species*	Islandic names
Nuculidae	*Nuculana*	*pernula*	(O.F. Müller, 1779)	*Leda*	*pernula*	Trönuskel
Yoldiidae	*Yoldia*	*hyperborea*	(Gould, 1841)	*Yoldia*	*hyperborea*	Kolkuskel
	Yoldiella	*lucida*	(Lovén, 1846)	*Portlandia*	*lucida*	Glittoda
Arcidae	*Asperarca*	*nodulosa*	(O.F. Müller, 1776)	*Arca*	*nodulosus*	Vörtubirða
	Bathyarca	*glacialis*	(Gray, 1824)	*Arca*	*glacialis*	Jökulbirða
	Bathyarca	*pectunculoides*	(Scacchi, 1835)	*Arca*	*pectunculoides*	Hörpubirða
Mytilidae	*Dacrydium*	*ockelmanni*	Mattson & Warén, 1997	-	-	-
	Idas	cf *cylindricus*	Pelorce & Poutiers, 2009	-	-	-
	Modiolula	*phaseolina*	(Philippi, 1844)	*Modiola*	*phaseolina*	Öðlingur
	Modiolus	*modiolus*	(Linnaeus, 1758)	*Modiola*	*modiolus*	Aða eða öðuskel
	Musculus	*laevigatus*	(J.E. Gray, 1824)	*Modiolaria*	*discors var laevigata*	Silkihadda, afbrigði
Pectinidae	*Chlamys*	*islandica*	(O.F. Müller, 1776)	*Pecten*	*islandicus*	Hörpudiskur
	Delectopecten	*vitreus*	(Gmelin, 1791)	*Pecten*	*vitreus*	Glitdiskur
	Karnekampia	*sulcata*	(O.F. Müller, 1776)	*Pecten*	*aratus*	Bárudiskur
	Palliolum	*striatum*	(O.F. Müller, 1776)	*Pecten*	*striatus*	Rákadiskur
	Palliolum	*tigerinum*	(O.F. Müller, 1776)	*Pecten*	*tigerinus*	Flekkudiskur
	Pseudamussium	*peslutrae*	(Linnaeus, 1771)	*Pecten*	*septemradiatus*	Geisladiskur
Propeamussiidae	*Similipecten*	*similis*	(Laskey, 1811)	*Pecten*	*similis*	Kringludiskur
Anomiidae	*Heteranomia*	*squamula*	(Linnaeus, 1758)	*Anomia*	*squamula*	Gluggaskel
Limidae	*Acesta*	*excavata*	(J.C. Fabricius, 1779)	*Lima*	*excavata*	Ægisdrekka
	Limatula	*gwyni*	(Sykes, 1903)	*Lima*	*gwyni*	Njarðardrekka
Astartidae	*Astarte*	*borealis*	(Schumacher, 1817)	*Astarte*	*borealis*	Gimburskel
	Astarte	*elliptica*	(T. Brown, 1827)	*Astarte*	*elliptica*	Dorraskel
	Astarte	*subaequilatera*	G.B. Sowerby II, 1854	*Astarte*	*crenata var. subaequilatera*	Fœriskel
	Astarte	*sulcata*	(da Costa, 1778)	*Astarte*	*sulcata*	Sauðaskel
Thyasiridae	*Thyasira*	*obsoleta*	(Verrill & Bush, 1898)	-	-	-
	Thyasira	*sarsii*	(Philippi, 1845)	*Thyasira*	*flexuosa var. sarsi*	Hrukkubúlda, afbrigði
Lasaeidae	*Kellia*	*suborbicularis*	(Montagu, 1803)	*Kellia*	*suborbicularis*	Bugnisskel
	Tellimya	*tenella*	(Lovén, 1846)	-	-	-
Cardiidae	*Acanthocardia*	*echinata*	(Linnaeus, 1758)	*Cardium*	*echinatum*	Ígulskel
	Ciliatocardium	*ciliatum*	(O. Fabricius, 1780)	*Cardium*	*ciliatum*	Báruskel
	Parvicardium	*minimum*	(Philippi, 1836)	*Cardium*	*minimum*	Grýtuskel
	Parvicardium	*pinnulatum*	(Conrad, 1831)	*Cardium*	*fasciatum*	Pétursskel
	Serripes	*groenlandicus*	(Mohr, 1786)	*Serripes*	*groenlandicum*	Krókskel
Mactridae	*Spisula*	*elliptica*	(T. Brown, 1827)	*Spisula*	*elliptica*	Tígulskel ?
Tellinidae	*Macoma*	*calcarea*	(Gmelin, 1791)	*Macoma*	*calcaria*	Halloka
Psammobiidae	*Gari*	*tellinella*	(Lamarck, 1818)	*Psammobia*	*tellinella*	Gliámeyla
Semelidae	*Abra*	*nitida*	(O.F. Müller, 1776)	*Abra*	*nitida*	Lýsuskel
	Abra	*prismatica*	(Montagu, 1808)	*Abra*	*prismatica*	Ýsuskel
Arcticidae	*Arctica*	*islandica*	(Linnaeus, 1767)	*Cyprina*	*islandica*	Kúfskel
Veneridae	*Timoclea*	*ovata*	(Pennant, 1777)	*Venus*	*ovata*	Freyjuskel
Myidae	*Mya*	*pseudoarenaria*	Schlesch, 1931	*Mya*	*truncata ovata*	Smyrslingur
Hiatellidae	*Hiatella*	*arctica*	(Linnaeus, 1767)	*Saxicava*	*arctica*	Rataskel
	Panomya	*norvegica*	(Spengler, 1793)	*Panopaea*	*norvegica*	Redduskel
Poromyidae	*Poromya*	*granulata*	(Nyst & Westendorp, 1839)	*Poromya*	*granulata*	Drafnarskel
Cuspidariidae	*Cuspidaria*	*arctica*	(M. Sars, 1859)	*Cuspidaria*	*obesa var. arctica*	*Risakesja*

Systematic classification		Gastropoda		Óskarsson's classification	Gastropoda	
Family	*Genus*	*species*	Authors	*Genus*	*species*	Islandic names
Lepetidae	*Iothia*	*fulva*	(O.F. Müller, 1776)	*Pilidium*	*fulvum*	Goðahetta
Skeneidae	*Skenea*	*ferruginea*	Warén, 1991	-	-	-
Newtoniellidae	*Laeocochlis*	*sinistrata*	(Nyst, 1835)	*Laeocochlis*	*granosa*	Döglingur
Eulimidae	*Haliella*	*stenostoma*	(Jeffreys, 1858)	*Melanella*	*stenostoma*	Gormlyngvi
Aporrhaidae	*Aporrhais*	*pespelecani*	(Linnaeus, 1758)	*Aporrhais*	*pespelecani*	Vœngbarði
Capulidae	*Ariadnaria*	*borealis*	(Broderip & G.B. Sowerby I, 1829)	*Trichotropis*	*borealis*	Barðakati
	Capulus	*ungaricus*	(Linnaeus, 1758)	*Capulus*	*hungaricus*	Hnýfilbobbi
Velutinidae	*Velutina*	*velutina*	(O.F. Müller, 1776)	*Velutina*	*velutina*	Hornkúfa
Naticidae	*Bulbus*	*smithii*	T. Brown, 1839	*Acrybia*	*flava*	Ámupoppa
	Cryptonatica	*affinis*	(Gmelin, 1791)	*Natica*	*clausa*	Meyjarpatta
	Euspira	*montagui*	(Forbes, 1838)	*Lunatia*	*montagui*	Beltispoppa
	Euspira	*pallida*	(Broderip & G.B. Sowerby I, 1829)	*Lunatia*	*pallida*	Groenlandspoppa
	Euspira	*tenuistriata*	(Dautzenberg & H. Fischer, 1911)	*Lunatia*	*tenuistriata*	Rákapoppa
Muricidae	*Boreotrophon*	*clathratus*	(Linnaeus, 1767)	*Boreotrophon*	*clathratus*	Kambdofri
	Boreotrophon	*truncatus*	(Strøm, 1768)	*Boreotrophon*	*truncatus*	Gáradofri
	Scabrotrophon	*fabricii*	(Møller, 1842)	*Boreotrophon*	*fabricii*	Baugadofri
Ptychatractidae	*Metzgeria*	*alba*	(Jeffreys in Wyville-Thomson, 1873)	*Metzgeria*	*pusilla*	Trjónuglammi
Buccinidae	*Anomalisipho*	*virgata*	(Friele, 1879)	*Sipho*	*altus*	Djúpkóngur
	Beringius	*turtoni*	(Bean, 1834)	*Beringius*	*turtoni*	Gullskati
	Buccinum	*finmarkianum*	Verkrüzen, 1875	*Buccinum*	*finmarchianum*	Finnakóngur
	Buccinum	*hydrophanum*	Hancock, 1846	*Buccinum*	*hydrophanum*	Sléttikóngur
	Buccinum	*kjennerudae*	Bouchet & Warén, 1985	-	-	-
	Buccinum	*nivale*	Friele, 1882	-	-	-
	Buccinum	*alicei*	Dautzenberg & H. Fischer, 1912	-	-	-
	Buccinum	*species*				
	Buccinum	*undatum*	Linnaeus, 1758	*Buccinum*	*undatum*	Beitukóngur
	Colus	*glaber*	(Verkrüzen in Kobelt, 1876)	*Sipho*	*glaber*	Starkóngur
	Colus	*holboelli*	(Møller, 1842)	*Sipho*	*tortuosus*	Bugðukóngur
	Colus	*islandicus*	(Mohr, 1786)	*Sipho*	*islandicus*	Péturskóngur
	Colus	*sabini*	(Gray, 1824)	*Sipho*	*togatus*	Bárðarkóngur
	Colus	*turgidulus*	(Friele, 1877)	*Sipho*	*turgidulus*	Digrikóngur
	Liomesus	*ovum*	(W. Turton, 1825)	*Liomesus*	*ovum*	Sléttihnubbur
	Neptunea	*despecta*	(Linnaeus, 1758)	*Neptunea*	*despecta*	Hafkóngur
	Retifusus	*latericeus*	(Møller, 1842)	*Sipho*	*latericeus*	Blökkukóngur
	Turrisipho	*fenestratus*	(W. Turton, 1834)	*Sipho*	*fusiformis*	Bárukóngur
	Turrisipho	*moebii*	(Dunker & Metzger, 1875)	*Sipho*	*sarsi / ebur*	Sarskóngur - Mjallarkóngur
	Turrisipho	*voeringi*	Bouchet & Warén, 1985	*Sipho*	*lachesis non S undulatus*	Skuldarkóngur
	Volutopsius	*norwegicus*	(Gmelin, 1791)	*Volutopsius*	*norvegicus*	Ránarbuðli
Nassariidae	*Tritia*	*incrassata*	(Strøm, 1768)	*Nassa*	*incrassata*	Brimgagar
Columbellidae	*Amphissa*	*acutecostata*	(Philippi, 1844)	*Pyrene*	*costulata*	Öldudúfa
Volutomitridae	*Volutomitra*	*groenlandica*	(Møller, 1842)	*Volutomitra*	*groenlandica*	Dumbur
Scaphandridae	*Scaphander*	*lignarius*	(Linnaeus, 1758)	*Scaphander*	*lignarius*	Ægiskuggur
	Scaphander	*punctostriatus*	(Mighels & C.B. Adams, 1842)	*Scaphander*	*punctostriatus*	Ránarkuggur
Laonidae	*Laona*	*quadrata*	(S. Wood, 1839)	*Philine*	*quadrata*	Tígullaufa
Philinidae	*Hermania*	*scabra*	(O.F. Müller, 1784)	*Philine*	*scabra*	Kamblaufa

Systematic classification		Scaphopoda		Óskarsson's classification	Scaphopoda	
Family	*Genus*	*species*	Authors	*Genus*	*species*	Islandic names
Dentaliidae	*Antalis*	*agilis*	(M. Sars in G.O. Sars, 1872)	-	-	-
	Antalis	*entalis*	(Linnaeus, 1758)	-	-	-

Systematic classification		Polyplacophora		Óskarsson's classification	Polyplacophora	
Family	*Genus*	*species*	Authors	*Genus*	*species*	Islandic names
Hanleyidae	*Hanleya*	*nagelfar*	(Lovén, 1846)	-	-	-
Tonicellidae	*Boreochiton*	*ruber*	(Linnaeus, 1767)	-	-	-

Appendix 2. Survey and station list where mollusc species (Bivalvia, Gastropoda, Scaphopoda and Polyplacophora) were collected in Iceland during six groundfish and *Nephrops* surveys in 2013-2015.

Cruise	Station	Latitude set N°	Longitude set W°	Latitude hauled N°	Longitude hauled W°	Depth set (m)	Depth hauled (m)
A10-2013	**538**	630523	- 265302	630822	-265251	1330	1312
A10-2013	**539**	632699	- 261562	632912	-261684	819	798
A10-2013	**568**	653124	- 271955	653403	-271691	489	477
A10-2013	**586**	652754	- 304383	652751	-305100	392	389
A10-2013	**592**	655549	- 281234	655811	-281597	526	461
A10-2013	**593**	661228	- 283035	661418	-283604	315	304
A10-2013	**595**	662914	- 262579	663203	-262780	596	561
A10-2013	**598**	663321	- 251441	663472	-250792	410	393
A10-2013	**601**	665779	- 264115	670079	-264071	513	464
A10-2013	**602**	665800	- 253939	665764	-253189	901	970
A10-2013	**606**	672120	- 232546	672260	-231858	443	447
A10-2013	**607**	674060	- 230226	674263	-225647	780	735
A10-2013	**608**	672587	- 224088	672598	-223315	450	444
A10-2013	**610**	671835	- 214362	672015	-214984	346	376
A10-2013	**611**	672449	- 214288	672484	-213490	491	484
A10-2013	**612**	673421	- 214815	673719	-214813	608	634
A10-2013	**616**	673730	- 204381	673537	-203763	540	477
A10-2013	**617**	673281	- 202921	673261	-202141	409	369
A10-2013	**618**	674033	- 201973	674333	-201921	563	671
A10-2013	**627**	672737	- 194403	672657	-193653	358	347
A10-2013	**631**	672024	- 180514	671755	-180162	821	752
A10-2013	**632**	671290	- 181796	671300	-181022	467	466
A10-2013	**634**	672381	- 172478	672677	-172389	911	924
A10-2013	**637**	671788	- 165077	671900	-164357	693	693
A10-2013	**639**	671472	- 161507	671579	-160788	366	379
A10-2013	**641**	671622	- 153398	671556	-152666	317	290
A10-2013	**643**	672674	- 144045	672803	-143351	923	966
A10-2013	**646**	665464	- 133194	665464	-132446	529	578
A10-2013	**647**	664477	- 124948	664262	-124431	898	903
A10-2013	**648**	663655	- 124597	663361	-124565	304	297
A10-2013	**650**	662396	- 120078	662386	-120820	1113	1069
A10-2013	**659**	652880	- 104379	652578	-104404	852	801
A10-2013	**660**	653632	- 101100	653696	-100393	822	829
A10-2013	**664**	650961	- 111538	651255	-111632	575	590
A10-2013	**668**	643524	- 112185	643433	-112856	426	435
A10-2013	**674**	641245	- 93857	640950	-93956	804	820
A10-2013	**675**	640129	- 93962	635836	-93811	742	718
A10-2013	**676**	640109	- 95099	640316	-95595	696	679
A10-2013	**677**	635801	- 101146	635786	-101826	575	544
A10-2013	**678**	635499	- 112033	635752	-111666	368	351
A2-2015	**43**	645835	- 235769	650040	-234960	188	213

A2-2015	**47**	651429	- 232867	651246	-233311	55	52
A2-2015	**49**	651757	- 234513	651615	-235037	51	57
A2-2015	**50**	650890	- 235673	650782	-240585	67	90
A2-2015	**52**	651437	- 245109	651040	-245250	85	102
A2-2015	**53**	650154	- 242681	650233	-243592	112	107
A2-2015	**56**	653405	- 251316	653204	-251305	80	81
A2-2015	**59**	654004	- 260928	653922	-261867	155	190
A2-2015	**61**	654278	- 263126	653926	-263558	174	155
A2-2015	**64**	655161	- 264433	655553	-264411	263	284
A2-2015	**65**	655660	- 264982	660015	-264611	363	365
A2-2015	**67**	660066	- 261819	660310	-261045	244	237
A2-2015	**72**	660907	- 261320	661178	-260436	412	382
A2-2015	**77**	662392	- 253125	662063	-253669	333	319
A2-2015	**79**	664053	- 224365	664121	-224216	48	58
A2-2015	**82**	665291	- 220676	665600	-221310	147	160
A2-2015	**83**	665902	- 221411	665900	-222425	192	188
A2-2015	**84**	665708	- 222573	665436	-223320	175	159
A2-2015	**87**	670003	- 222383	670369	-222773	194	214
A2-2015	**90**	671506	- 220554	671503	-221580	371	341
A2-2015	**93**	670165	- 230011	670554	-225995	242	245
A2-2015	**96**	665426	- 225743	665681	-224972	208	214
A2-2015	**98**	665104	- 231967	665193	-230988	217	194
A2-2015	**99**	664882	- 225318	664515	-225690	125	92
A2-2015	**100**	664500	- 231214	664403	-232187	113	136
A2-2015	**101**	665050	- 233960	665192	-233017	180	180
A2-2015	**105**	664074	- 242156	663997	-241196	138	231
A2-2015	**107**	664904	- 235874	665286	-240026	144	161
A2-2015	**108**	663450	- 240098	663165	-235446	165	165
A2-2015	**112**	662692	- 233142	663062	-233411	129	125
A2-2015	**117**	662326	- 234847	662038	-235441	112	112
A2-2015	**119**	663032	- 242440	663271	-243186	94	97
A2-2015	**124**	661801	- 231782	661596	-230942	63	69
A3-2014	**6**	640660	- 225890	640260	-225960	70	80
A3-2014	**11**	640006	- 233314	635908	-234200	127	129
A3-2014	**14**	634947	- 241265	634561	-241170	161	147
A3-2014	**23**	641568	- 265358	641905	-265818	375	405
A3-2014	**24**	642231	- 262173	642570	-262621	298	305
A3-2014	**27**	640921	- 235886	641260	-235401	266	296
A3-2014	**28**	640994	- 234338	641347	-233921	118	107
A3-2014	**29**	641066	- 233231	641440	-232984	110	110
A3-2014	**34**	643479	- 230272	643102	-230590	69	95
A3-2014	**35**	643658	- 233480	643514	-234345	115	124
A3-2014	**38**	643528	- 243802	643339	-242978	236	234
A3-2014	**39**	643063	- 242405	642892	-243228	205	154
A3-2014	**40**	642503	- 250103	642101	-250149	210	215
A3-2014	**41**	641492	- 245313	641644	-244475	176	164

A3-2014	**47**	641159	- 251688	641546	-251462	249	251
A3-2014	**48**	641847	- 252257	642230	-252515	223	256
A3-2014	**51**	645160	- 271340	645550	-271450	386	357
A3-2014	**52**	650050	- 271262	650248	-270451	311	240
A3-2014	**53**	651390	- 270090	651193	-270166	229	234
A3-2014	**59**	670059	- 235721	670336	-234984	231	244
A3-2014	**60**	665990	- 234580	670369	-234211	204	215
A3-2014	**61**	670932	- 233930	670620	-233280	249	234
A3-2014	**67**	671504	- 221547	671498	-220519	344	374
A3-2014	**68**	670985	- 220190	670587	-220198	231	215
A3-2014	**69**	670798	- 221132	670592	-222018	229	237
A3-2014	**70**	670360	- 222762	670127	-222509	208	196
A3-2014	**71**	670114	- 222768	670020	-223766	190	207
A3-2014	**77**	665198	- 233023	665041	-233978	184	174
A3-2014	**78**	665026	- 234270	665339	-234887	153	170
A3-2014	**79**	665007	- 235161	665328	-235746	151	165
A3-2014	**84**	665080	- 243614	664760	-244230	196	232
A3-2014	**85**	664804	- 243674	664421	-243990	164	157
A3-2014	**86**	664260	- 244263	663882	-244573	151	181
A3-2014	**87**	663860	- 245123	663547	-245734	287	267
A3-2014	**90**	654904	- 235445	655225	-240023	54	45
A3-2014	**91**	653623	- 240304	653920	-240920	48	47
A3-2014	**92**	653940	- 241100	654230	-240750	44	17
A3-2014	**95**	654710	- 245937	654310	-245952	63	69
D2-2015	**5**	633557	- 225921	634048	-225775	170	142
D2-2015	**6**	634123	- 225593	634495	-224880	144	151
D2-2015	**12**	631732	- 200044	631912	-195098	212	240
D2-2015	**14**	633322	- 173989	633758	-173441	148	139
D2-2015	**15**	633848	- 171633	633541	-171007	152	181
D2-2015	**17**	632591	- 165350	632848	-164855	267	277
D2-2015	**19**	635021	- 145391	635450	-145978	227	223
D2-2015	**23**	635930	- 141263	640305	-141996	230	197
D2-2015	**24**	640397	- 142686	640720	-143304	174	167
D2-2015	**35**	634257	- 164836	633963	-170021	144	153
D2-2015	**38**	631826	- 202061	631594	-202624	131	144
D2-2015	**49**	633810	- 233959	634310	-233866	180	170
D4-2014	**6**	632160	- 202056	631671	-200316	182	184
D4-2014	**10**	633888	- 171658	633544	-171094	154	179
D4-2014	**14**	633957	- 154841	634013	-154698	194	193
D4-2014	**22**	635871	- 141270	640336	-142027	221	193
D4-2014	**30**	634236	- 164840	633989	-165926	146	152
D4-2014	**31**	633202	- 171146	633481	-172017	165	131
D4-2014	**32**	633903	- 171477	634123	-171970	153	132
D4-2014	**33**	632366	- 194975	632138	-200115	151	178
D4-2014	**38**	632619	- 212446	632886	-213365	126	125

D4-2014	**43**	633066	- 223731	633272	-224624	224	198
D4-2014	**45**	633614	- 225846	634018	-225816	170	141
D4-2014	**46**	634793	- 231432	634622	-232806	145	152
D4-2014	**47**	634735	- 231869	635234	-231807	148	135
D4-2014	**48**	635197	- 232421	635581	-231730	139	123
D4-2014	**49**	635741	- 231791	640252	-231934	121	116
D4-2014	**50**	635719	- 231191	635170	-231723	116	136
D4-2014	**52**	633671	- 234084	633257	-234737	188	175
D4-2014	**53**	632756	- 233830	632277	-234215	188	211
D4-2014	**54**	642645	- 232827	642483	-231737	165	158
TL2-2014	**1**	633295	- 150881	633187	-151506	279	270
TL2-2014	**5**	631078	- 174404	630995	-175047	588	582
TL2-2014	**7**	631306	- 182820	631329	-183499	196	166
TL2-2014	**18**	631021	- 232404	630833	-232924	478	515
TL2-2014	**38**	631174	- 255885	631365	-260343	1048	1024
TL2-2014	**42**	633812	- 260846	634081	-261136	433	472
TL2-2014	**43**	634477	- 262772	634742	-263095	676	596
TL2-2014	**58**	645387	- 272810	645090	-272712	560	568
TL2-2014	**61**	651699	- 272703	651962	-273184	470	582
TL2-2014	**67**	645007	- 284371	645264	-284745	1098	1046
TL2-2014	**74**	654614	- 294316	654916	-294365	316	316
TL2-2014	**78**	652996	- 290261	652797	-285931	1216	1281
TL2-2014	**85**	653873	- 273792	654027	-273165	686	631

HAFRANNSÓKNASTOFNUN

Rannsókna- og ráðgjafarstofnun hafs og vatna