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Content

Preface

This report presents the results from targeted underwater surveys for escaped farmed Atlantic salmon conducted in selected Icelandic rivers during October 2025. The surveys were carried out through a collaborative effort between the Norwegian Veterinary Institute (NVI), Scandinavian Nature Surveillance (SNA), and the Norwegian Institute for Nature Research (NINA), following an initiative from Icelandic stakeholders concerned about the potential occurrence of escaped farmed salmon in wild spawning populations.

The fieldwork was conducted under highly variable and challenging environmental conditions. Despite these constraints, extensive survey coverage was achieved through close cooperation, flexible logistics, and the combined experience of the participating field teams and local collaborators.

We would particularly like to thank Landssamband veiðifélaga and Jóhann Helgi Stefánsson, the North Atlantic Salmon Fund (NASF), Fiskistofa, local river owners and guides for valuable assistance, coordination, and facilitation during the fieldwork. Their local knowledge, practical support, and flexibility were essential for the successful completion of the surveys. We also thank our respective organisations in Norway for supporting this constructive collaboration, as well as all other involved parties in both countries for their trust and cooperation throughout the project.

Trondheim, Norway
May 2026

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Conservation Measurements, NVI

Summary

In autumn 2025, the Norwegian Veterinary Institute (NVI), in cooperation with Scandinavian Nature Surveillance (SNA) and the Norwegian Institute for Nature Research (NINA), conducted a targeted survey of selected Icelandic rivers. The goal was to assess the potential presence of escaped farmed Atlantic salmon (*Salmo salar*) and remove such individuals if detected. The assignment was initiated following concerns raised by Icelandic river owners, the North Atlantic Salmon Fund (NASF), and Landssamband veiðifélaga (e. Federation of Icelandic river owners) regarding potential impacts on wild spawning populations.

Fieldwork was carried out between 11th and 16th October. A total of 23 rivers were visited over four effective diving days, of which 19 rivers were surveyed using drift-diving methods. Two dive teams operated in parallel to maximise survey coverage during a limited and weather-dependent time window. Survey planning and river prioritisation were conducted in close cooperation with Fiskistofa (e. Directorate of Fisheries) and local stakeholders.

Weather conditions and high river discharge resulted in variable and frequently poor underwater visibility, limiting survey effort and precision in several rivers. Despite these constraints, substantial sections of many rivers were successfully surveyed, and wild salmon were observed in most systems. Spawning activity appeared to be well underway or completed in several rivers, as indicated by the presence of spawning pits and a predominance of male fish.

Three salmon suspected to be of farmed origin were observed during the surveys. One individual was recorded but not recaptured in Hrútarfjarðará. Two atypical salmon were observed and removed in Ísafjarðará. Scale analyses confirmed that one of these was an escaped farmed salmon, while the other was most likely a previously released hatchery-reared fish. Overall, no widespread occurrence of escaped farmed salmon was detected in the surveyed rivers.

Introduction

This project was initiated following an inquiry to the Norwegian Veterinary Institute (NVI) in the autumn of 2025. Concerns had been raised by several stakeholders along Icelandic salmon rivers, the North Atlantic Salmon Fund (NASF), and the umbrella organisation for Icelandic fishing associations, Landssamband veiðifélaga, regarding the potential presence of escaped farmed Atlantic salmon among wild spawning populations in Icelandic rivers. The request coincided with the peak season for comparable assignments in Norway—a period characterised by limited duration and high uncertainty due to weather conditions, water discharge, underwater visibility, and the biological constraints of the salmon spawning season. This placed considerable pressure on already limited personnel resources across Norwegian organisations conducting this type of fieldwork. To address the request in a realistic and coordinated manner, NVI proposed a joint effort involving multiple Norwegian actors with relevant expertise. Several leading organisations specialising in drift diving and underwater fieldwork on both wild and escaped salmon were invited to participate and responded positively. An expert group was subsequently formed, comprising specialists from NVI, Scandinavian Nature Monitoring (SNA), and the Norwegian Institute for Nature Research (NINA), and was coordinated by NVI.

The primary objective of the Icelandic assignment was to survey selected rivers for the presence of escaped farmed Atlantic salmon and, where detected, to remove such individuals. Over the course of four full days of underwater surveys, 19 rivers were examined by two teams from the expert group (Figure 1). Throughout the survey period, representatives from *Landssamband veiðifélaga* and NASF provided guidance and logistical support, while representatives from *Fiskistofa* accompanied both teams as observers.

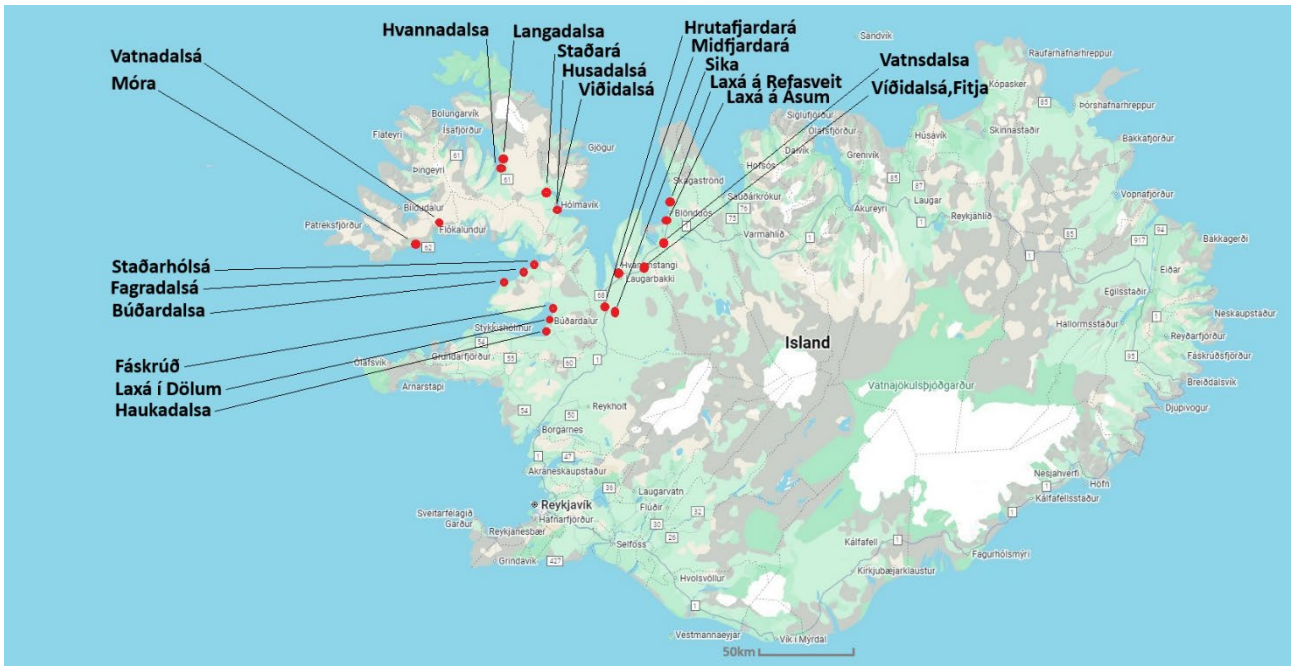

Figure 1. Map of the visited/surveyed rivers. The map is also illustrated in a greater scale in appendix 15.

Methods

Survey design

Underwater surveys for detection, registration, and removal of escaped Atlantic salmon in Icelandic rivers were conducted over a five-day period from 11th to 16th October, comprising four full days of fieldwork. A total of 19 rivers were surveyed (table, appendix III).

The selection and prioritising of rivers to be inspected was opted for by Landssamband veiðifélaga and NASF in collaboration with local landowners and fishing guides. The prioritised list was formulated with the imperative to swiftly survey a significant number of rivers and promptly implement measures to remove unwanted farmed Atlantic salmon.

Investigated areas varied between rivers. Stretches from lakes and migration barriers down to the sea were inspected for some rivers, while pools and shorter stretches were inspected in other rivers. For the latter case, inspected pools and stretches were mostly selected based on local knowledge of holding pools and where escaped farmed salmon previously had been observed. Some of these stretches were extended based on the crew's own experience regarding where salmon typically stay at this time of year, due to spawning time, spawning behaviour and where to expect gatherings of escaped farmed Atlantic salmon. In Norway, experience from field work show that spawning time for farmed Atlantic salmon may vary from that of wild fish, but that time of arrival to the watercourse also may occur at the same time for both farmed and wild fish (Svenning et al., 2015). For escaped, farmed fish spawning time in the wild is most likely affected by both degree of maturation and timing of the escape-incidence.

To identify the various river stretches, beat names were obtained from the Angling IQ app and by the help of local guides.

Drift diving

The method used, a snorkel-based survey called "drift diving", is shown suitable for documenting populations of anadromous salmonids in rivers (Skoglund et al. 2023). The diving personnel were organised into two teams, with three divers per team, operating separately. Due to substantial spatial and temporal variation in weather conditions, river discharge, and underwater visibility between rivers and survey days, both the prioritised list of rivers and the associated logistics were adjusted repeatedly throughout the field period.

Depending on river width and underwater visibility, one or several divers operated in parallel to ensure optimal coverage of the entire river cross-section and visual contact between divers. Fish observations were recorded continuously and noted on waterproof writing pads. Registrations were based on Norwegian standard for visual registration of sea migrating salmonids in watercourses (NS 9456:2015). The diver's equipment also included semi-dry neoprene diving suits, masks, snorkels, fins and spearguns.

Drift diving surveys were conducted by actively snorkeling downstream, with passive drifting only in sections with strong current. In river sections where multiple divers were required to visually cover the entire cross-section, the divers swam in a transverse line formation. This configuration allowed fish to be distributed between divers and, when necessary, guided towards the deeper parts of the cross-section where fish behavior is typically calmer. Where wide sections narrowed into confined channels, the divers instead positioned themselves in a longitudinal formation. This allowed fish to pass the divers rather than being pushed downstream due to an overly tight cross-sectional coverage.

To avoid repeated registration of the same fishes, only fish passing the diver were counted, while fish swimming ahead of the diver were not recorded. To further prevent double registration of fish passing between adjacent divers, observations were communicated by visual signalling, typically by pointing at the fish.

During standard drift diving surveys, fish are normally classified by size and number of winters at sea as an estimate of age. The sex of individual fish is also commonly registered when surveying wild salmon during the spawning period. However, because origin (wild or framed) was the primary parameter of interest, sex was not always recorded when large numbers of fish were encountered simultaneously or low visibility made sex determination difficult.

Escaped farmed salmon can often be distinguished from wild individuals based on morphological characteristics that typically reflect rearing conditions in aquaculture or a non-wild genetic background. This includes fin condition (caudal, pectoral, and dorsal fins), pigmentation, gill cover integrity, and overall body shape (Jonsson & Jonsson, 2011). The degree to which these characteristics are expressed depends on factors such as the life stage at escape and the duration of time spent in the wild. Recently escaped farmed Atlantic salmon are therefore often readily distinguishable from wild individuals.

Underwater observation through drift diving further allows differentiation based on behavioural traits. Farmed salmon frequently display more hesitant or fearless behaviour compared to wild individuals and may position themselves differently within the same habitat. Drift diving has been shown to be an accurate and robust method for quantifying escaped farmed salmon, at least in rivers where observation conditions are adequate for snorkeling (Mahlum et al. 2019).

Removal of suspected escaped farmed salmon was carried out by underwater hunting using spearguns. Removed fish were retrieved and handed over to inspectors from Fiskistofa for further examination.
If a large enough portion of the river/fish stock is investigated, divers are also able to infer about progress of spawning in the Atlantic salmon stock (early in the process, ongoing spawning or late/finished spawning). If the fish, in large degree, is finished spawning, a large portion of the total fish-stock may have left the river, and divers are left surveying a potential small portion of the total stock. Such deductions demand that size and gender of the fish was registered. We underline that where such deductions are made, these are subject to bias due to the large degree of subjectivity when inferring about progress of spawning.

Results

The efforts made in visited rivers are summarized in a table in appendix III. A more detailed presentation of the results is provided by day and watercourse, along with a brief description of each river. In the days preceding and during the survey period, locally rainfall resulted in elevated water levels and, in several rivers, reduced underwater visibility. These conditions made registrations complicated in several of the rivers where surveys were conducted and reduced the possibilities for detecting and removal of farmed salmon.

Diving day 1 (13.10.25)

Haukadalsá

The Haukadalsá River was divided into two stretches, one in the upper section downstream of the lake and one in the lower section near the river mouth at the ocean. Three divers were used to cover the cross-section of the river. The upper stretch started at the pool “37. Efri-Brúarstengur” and extended downstream to pool “21. Kirkjubergsfljót”. In total 91 Atlantic salmon were observed, where 75 of these observations were in the lodge area. The lower stretch extended from pool “3B” to pool “3D” and here we observed 16 wild salmon. We did not observe farmed Atlantic salmon in the river. The underwater visibility was good (5-7 m). Spawning of Atlantic salmon was still ongoing but some observed female fish were already done spawning. Compared to previous

years observations the spawning appeared to be coming to an end. A map showing the surveyed area is included in Appendix I-1, followed by a table showing observed fish (table 1).

Húsadalsá and Víðidalsá (Hólmavík)

Both Húsadalsá and Viðidalsá in Hólmavík were surveyed under excellent underwater visibility conditions (ca. 10 m). Two to three divers were used to cover the cross-section of the river. In Húsadalsá, the surveyed section extended from the first pool upstream of the hydropower plant outlet and downstream to the river mouth. A comparable section was surveyed in the adjoining river Víðidalsá. A total of 35 salmon were observed. We did not observe farmed Atlantic salmon in the river. Spawning of Atlantic salmon was early in progress. See Appendix I-2 for an overview map of the surveyed reaches and a table showing counted fish (table 2).

Síká

In Síká two divers surveyed the river from the bridge pool below Hrútatunguvegur down to the Hrútarfjarðará confluence, based on guiding by the client's instruction. The visibility was approximately 3 m, providing sufficient conditions to detect and distinguish between wild and farmed Atlantic salmon, but mitigation efforts with spear gun would be difficult. No salmon was observed.

In addition to the rivers already mentioned, seven other rivers were visited on the first day; however, visibility was considered too poor to allow for proper assessments. The following rivers were checked but deemed unsuitable due to unfavourable working conditions: Laxá í Dölum, Hrútarfjarðará, Laxá í Ásum, Laxá í Refasveit, Miðfjarðará and Víðidalsá with Fitjá. The river Staðarhólsá was also visited and surveyed in its uppermost section before visibility deteriorated due to inflow from a turbid tributary. All counts from Staðarhólsá are included in the chapter describing the second diving day.

Diving day 2 (14.10.25)

Búðardalsá

Búðardalsá was surveyed from the bridge (fish ladder) down to the sea. The visibility was good (6 m) (appendix I-3). Two divers were used to cover the cross-section of the river. A total of four wild salmon were observed (table 3). The sample of observed Atlantic salmon/river stretch was too small to infer about progress of spawning. We did not observe farmed Atlantic salmon in the river.

Fáskrúð

In Fáskrúð River five pools were surveyed, distributed from the pool “Matarpollar” down to the river mouth. The survey was primarily limited to singular pools, and visibility became poor downstream the uppermost pool (Appendix I-4). Therefore, the observations are not divided into individual sections but are presented collectively in table 4. Two divers were used to cover the cross-section of the river, and a total of 12 wild salmon were observed. The sample of observed Atlantic salmon/river stretch was too small to infer about progress of spawning. We did not observe farmed Atlantic salmon in the river.

Vatnadalsá

In the Vatnadalsá River, the surveyed section extended from approximately 200 m upstream of the bridge to the waterfall/fish ladder (Appendix I-5). Three divers were used to cover the cross-section of the river. Visibility was good (ca. 6 m), providing favourable conditions for drift counting. A total of 16 salmon (table 5) and two Arctic charr were observed within the surveyed area. Even if the investigated portion of the total watercourse was relatively small, as well the number of fish registered was low, we were left with an impression that the spawning was ongoing. Spawning areas in this watercourse are located very close to a large lake, which makes such deductions even more difficult. We did not observe farmed Atlantic salmon in the river.

Móra

The Móra River was surveyed in its middle to lower reaches under generally good visibility conditions, despite low levels of light caused by the approaching dusk (Appendix I-6). Three divers were used to cover the cross-section of the river. A total of 23 salmon were observed, distribution shown in table 6. Spawning of Atlantic salmon was still ongoing, but some individuals were finished spawning. We did not observe farmed Atlantic salmon in the river.

Fagradalsá

The Fagradalsá River was surveyed from the migration barrier at Gullfoss to the sea. One diver was used to cover the cross-section of the river. We did not observe farmed Atlantic salmon. This is a relatively short anadromous stretch, and only one small female Atlantic salmon was spotted in the lower pool. The sample of observed Atlantic salmon/river stretch was too small to infer about progress of spawning. See appendix I-7 for a describing map.

Staðarhólsá

The Staðarhólsá River was surveyed on two occasions, on 13 and 14 October, under conditions of low underwater visibility (< 1.5 m). On the first day, the upper section of the river was surveyed, extending from upstream of Kjarlaksvellir farm to the uppermost bridge. On the second day, approximately 500 m of river both upstream and downstream of the lower bridge were surveyed (Appendix I-8). Two to three divers were used to cover the cross-section of the river. Escaped farmed salmon had been observed in the upper pool two weeks prior to the survey by local landowners; however, no salmon, either wild or farmed, was observed in either the upper or lower sections during the surveys. The sample of observed Atlantic salmon was thus too small to infer about progress of spawning.

Hrútarfjarðará

In the Hrútarfjarðará River, visibility ranged from approximately 4 m in the lower reaches near the sea to around 2 m further upstream. With three divers and visibility of 2-4 m the observational conditions were sufficient, except for a few pools deeper than 2-4 m in the lower parts of the river. One farmed salmon was observed in the Búrhylur pool below the farm at Óspaksstaðir. The team was unable to remove the farmed fish, despite several drifts throught the same area. Further attempts were therefore considered unproductive, and the river was scheduled to be re-surveyed the following day. In total 34 wild salmon was observed, see appendix I-9 for map and table for observed fish.

Diving day 3 (15.10.25)

The plan on this day was for both teams to target the farmed salmon observed the day before in the Hrútafjardará River. However, visibility in the relevant section was very poor (approximately 1 m), and the teams were therefore reorganised in two groups and redirected to alternative rivers on the survey list.

Miðfjarðará

A long continuous stretch was surveyed all the way from pool “TT” down to the “Saurahylur” bridge pool (Appendix I-10). The visibility was very bad, below 2 meters, but despite this a total of 16 salmon (table 8) and five seatrouts up to 3 kg in size was observed. For the tributary river Vesturá the visibility was below 1 m, and the survey was cancelled.

Staðará

The river was surveyed from the uppermost fishing pool and down to the river mouth by the ocean. The entire river was thus investigated from top to bottom using two to three divers to cover the cross-section of the river. The visibility was good (7 m) and we did not observe any farmed Atlantic salmon. A total of eight wild Atlantic

salmon were recorded (Appendix I-11). Spawning of Atlantic salmon was in large degree over when the investigations were made and a potential large portion of the fish-stock could already have left the river.

Langadalsá

In Langadalsá, visibility ranged from 5 to 6 m, and working conditions were considered suitable. However, due to a redirection of the team to the higher-priority river Ísafjarðará, survey effort in Langadalsá was limited, and only the lowermost pool under the bridge was surveyed by three divers. No Atlantic salmon was observed, and the sample was therefore too small to infer about progress of spawning.

Ísafjarðará

In the Ísafjarðará River, visibility ranged from 8 to 10 m. The river was surveyed late in the afternoon under somewhat reduced light conditions, but excellent underwater visibility ensured that working conditions remained satisfying. Two to three divers covered the cross-section of the river. The river was surveyed from the migration barrier at the top of the river (waterfall) and almost all the way to the ocean. A total of 14 wild salmon were observed (Appendix I-12, table 10). The spawning was largely finished for Atlantic salmon, but still ongoing for a few observed fish.

Two salmon with atypical characteristics were observed in Ísafjarðará; both were considered likely to be of farmed origin and were shot and killed. Scale samples from both fish, one female and one male, were collected and analysed by both the Icelandic Food and Veterinary Authority and the Norwegian Veterinary Institute's specialised laboratory in Trondheim, Norway. Images of the scale samples analysed at the Norwegian Veterinary Institute are provided in Appendix IV.

Víðidalsá (Hùnafjörður)

In Víðidalsá River, visibility was measured at 1 to 2 meters, and the river was surveyed for a short stretch, but working conditions were poor and no fish were observed.

In Fitjá (a tributary of Víðidalsá, draining into Húnafjörður), Vesturá (a tributary of Miðfjarðará) and Vesturdalsá, visibility was very poor (< 1 m). Conditions were unsuitable for survey work, and diving was therefore cancelled in these rivers.

Diving day 4 (16.10.25)

Hvannadalsá

In Hvannadalsá, visibility was excellent (ca. 10 m), and a long continuous part of the river was surveyed. A total of seven wild salmon were observed, distributed across several pools within the section indicated on the river map in Appendix I-13. We did not observe any farmed Atlantic salmon. Two divers were used to cover the cross-section of the river. See table 10 for classified observed fish. The spawning was largely finished for Atlantic salmon.

Laxá í Dölum

The Laxá River in Dölum was divided into six pools and stretches based on visibility and previous observations of farmed Atlantic salmon. The number of divers used to cover of the cross-section of the river varied between two to five. In the upper reaches, visibility was excellent, reaching nearly 9 m, but the outlet of Laxárvatn reduced visibility to around 2 m (Appendix I-14). Poor visibility persisted throughout the remainder of the river. A total of 218 wild salmon and two sea trout were observed (table 11). We did not observe any farmed Atlantic salmon in the river. Spawning of Atlantic salmon was ongoing.

Discussion

The goal of this survey was to map the occurrence of escaped farmed Atlantic salmon in selected rivers in Iceland using drift diving as a method. If observing presumed escaped farmed fish, the survey also aimed to remove these fish through harpooning. This method has also been applied in earlier studies (Kanstad-Hanssen et al., 2023). However, changes in weather and water discharge may quickly alter underwater conditions and thereby affect the chances of success in these types of surveys, as strongly experienced during this study. The method is especially vulnerable to heavy rainfall, melting of snow, and sometimes even to strong winds, which often cause difficulties conducting such surveys. October is considered the main spawning period for Atlantic salmon in Iceland (Isaksson and Gudjonsson, 1995) and therefore suitable for counting salmon. It is also a month when the weather is often unstable and unpredictable. A weather forecast that predicted significant rainfall and storms led to postponement of the mission for two weeks from the originally planned period in late September/early October. Local precipitation before, but also during the actual survey week, made the underwater conditions for the Norwegian team and the day-to-day planning for the client challenging. However, close cooperation, good communication and flexibility from both the Norwegian and Icelandic teams ensured that most of the rivers on the client's list were surveyed within the four days available, in addition to several rivers not originally listed by the client.

In total, 23 different rivers were visited and attempted drift-dived during the survey-period. Rapidly changing weather and underwater visibility conditions were experienced across different rivers and regions. As a result, many of the rivers were revisited to exploit periods with adequate underwater visibility. Overall, attempts at drift-diving were successful in 19 rivers (listed overview in Appendix III).

A variety of holding pools, stretches between pools, and longer river sections were examined. In most of the rivers the fish had moved from the holding pools to the spawning grounds, and in many of them, spawning was well underway or likely already completed. It is known that male fish tend to stay longer in the spawning areas compared to females after spawning has concluded (Aas et al. 2010). Therefore, when results showed a very low proportion of female fish, combined with fish that has obviously finished its spawning (they are very slim, skinny and empty of eggs/milt, also showing typical injuries related to spawning activity), this leads to the conclusion that a large portion of the fish stock may have completed their spawning and also left the river/spawning areas. The number of wild fish registered during such surveys is therefore not comparative to the actual population of Atlantic salmon in the river, as a large proportion may have finished spawning and returned to the ocean. The same effect may also occur for farmed Atlantic salmon, and for such rivers where investigations were carried out too late, farmed fish may also have completed their spawning and left the river.

In consultation with the client, several longer stretches and spawning areas were surveyed in addition to those included in the client’s original plan. However, as the timing of the survey coincided with the final phase of the salmon spawning period, the effort could, in some rivers, advantageously have been focused even more on the spawning sites rather than on the holding pools. Another important note on spawning time for wild Atlantic salmon is that this seems to vary greatly between the rivers surveyed during these investigations. Differences in water-temperature regimes between the different watercourses may be one factor leading to these variations in time of spawning.

A total of three salmon resembling farmed escapees were observed in the surveyed rivers. One presumed escapee was registered in Hrútafjarðará. The fish was spotted during a swim-through and subsequently pursued several times on the first day of swimming, with unsuccessful attempts to harpoon it. Later attempts to relocate it during the week were also unsuccessful.

Two remaining suspected escapees were observed and removed in the Ísafjarðará River. Both displayed external characteristics suggesting a possible farmed origin, although they differed somewhat in appearance. One

individual exhibited typical characteristics of a relatively recently escaped farmed fish, while the other had worn fins and appeared generally atypical and in poorer condition than would normally be expected for a wild fish. Both individuals were therefore shot and killed.

Scale analysis from the NVI's specialised laboratory confirmed that the female, which displayed external characteristics typical of a recently escaped farmed fish, was of aquaculture origin. Scale analysis of the male, which also stood out due to worn fins and a somewhat atypical appearance, revealed highly atypical early growth followed by growth patterns consistent with wild fish during the adult stage. This pattern may indicate an early escape from aquaculture but could also suggest a hatchery-reared fish released or escaped at the smolt stage. The conclusions were consistent with the independent scale analyses conducted by the Icelandic Food and Veterinary Authority, which likewise concluded that neither fish displayed scale growth patterns consistent with a wild origin.

Several of the surveyed rivers had obvious visibility challenges due to turbid waters, resulting in either cancelled diving-attempts or reduced observation certainties as to which category of fish was observed. One may within reasons argue that this could negatively affect the study and question the quality of the results. To counter these issues, the distance between the divers was lowered, or number of divers increased, allowing fewer fish to pass without notice. Where divers did not have full coverage from one side of the river to the other, the attempt was cancelled or postponed. Interpretation of the survey results must account for substantial variation in environmental conditions among rivers and survey days.

Several rivers were characterised by very low underwater visibility (< 1–2 m), which in practice prevented effective drift diving surveys or severely limited survey coverage. In these rivers, including Vesturdalsá, Fitjá, and Vesturá, working conditions were unsuitable and survey activities were either restricted or cancelled. Consequently, the absence of observed salmon in these rivers cannot be interpreted as true absence.

Even in rivers where surveys were conducted under marginal conditions, such as Víðidalsá and Síká, reduced visibility and/or suboptimal light conditions likely lowered detection probability. In these cases, survey effort was adapted to the prevailing conditions; however, it remains possible that individual fish were not detected, particularly in deeper pools or structurally complex sections.

By contrast, rivers surveyed under good to excellent visibility, such as Vatnadalsá, Staðará, Mórá, Hvannadalsá, and Ísafjarðará, allowed for more comprehensive coverage and higher confidence in the recorded observations. In these systems, the likelihood of failing to detect present salmon is considered low, and the results therefore provide a more robust basis for interpretation.

The primary objective of the assignment was the detection and removal of escaped farmed Atlantic salmon, and biological classifications such as sea age and sex were therefore not prioritised. While this limits the use of the results for detailed population-level analyses, it does not affect the main conclusions regarding the occurrence and management of suspected escaped farmed salmon in the surveyed rivers. With great cooperation and facilitating from the Icelandic parts, the Norwegian divers managed to cover an acceptable number of rivers, stretches and pools during the four available days. Among the three-digit number of wild salmon in total, only three atypical salmons were observed and two of them were immediately eliminated, demonstrating the methods effectiveness given right conditions. Based on this, there is no indications that a concerning number of escapees were present in visited rivers during the spawning period autumn 2025.

Overall, the results highlight the strong influence of environmental conditions on survey effectiveness. Although drift diving can be an effective method for assessing spawning populations and removing escaped farmed salmon under favourable conditions, Icelandic weather and hydrological conditions may rapidly reduce its effectiveness.

Consequently, efforts to prevent escape events should remain the primary management priority, while drift diving should be regarded as a valuable supplementary measure.

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Appendix I - River maps and count tables

Haukadalsá

Table 1. Observed Atlantic salmon classified to gender and size in Haukadalsá.

River	Haukadalsá	Wild Atlantic salmon								
Date	13.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
Lodge area		30	18	10	4	8	4		1	
3B-3D		4	3	7			2			

Húsadalsá/Víðidalsá

Table 2. Observed Atlantic salmon classified to gender and size in Húsadalsá and Víðidalsá.

River	Húsadalsá + Víðidalsá	Wild Atlantic salmon								
Date	13.10.2025	Small (1-3kg)			Medium (1-3kg)			Large (1-3kg)		
WP/zone		M	F	?	M	F	?	M	F	?
Upper reaches of Húsadalsá		10	10		3	7				
Viðidalsá										
River confluence to the sea		2	3							

Síká

Búðardalsá

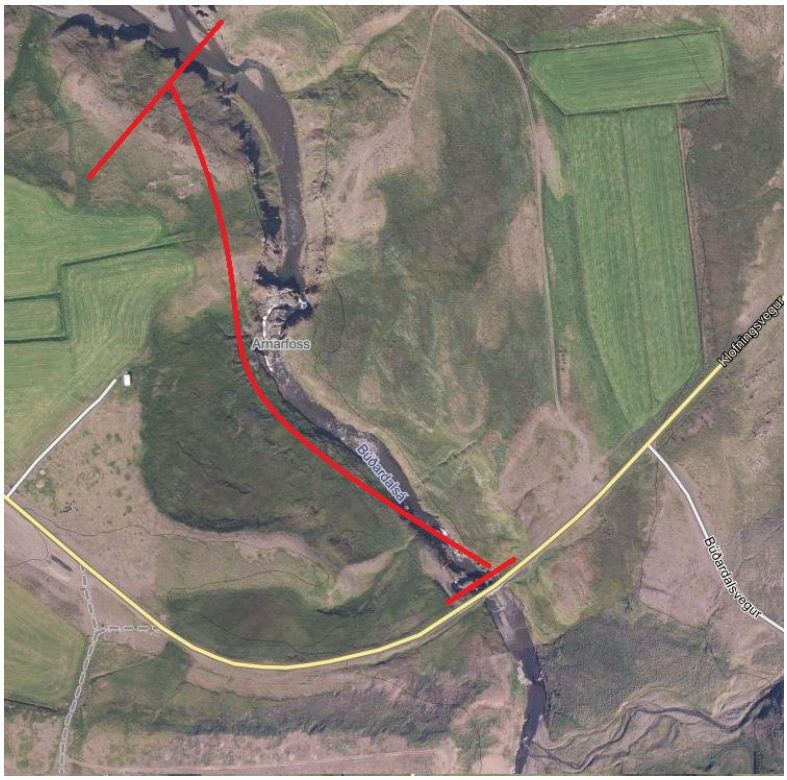


Table 3. Observed Atlantic salmon classified to gender and size in Búðardalsá.

River	Búðardalsá	Wild Atlantic salmon								
Date	14.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
From bridge and down		2			2					

Fáskrúð

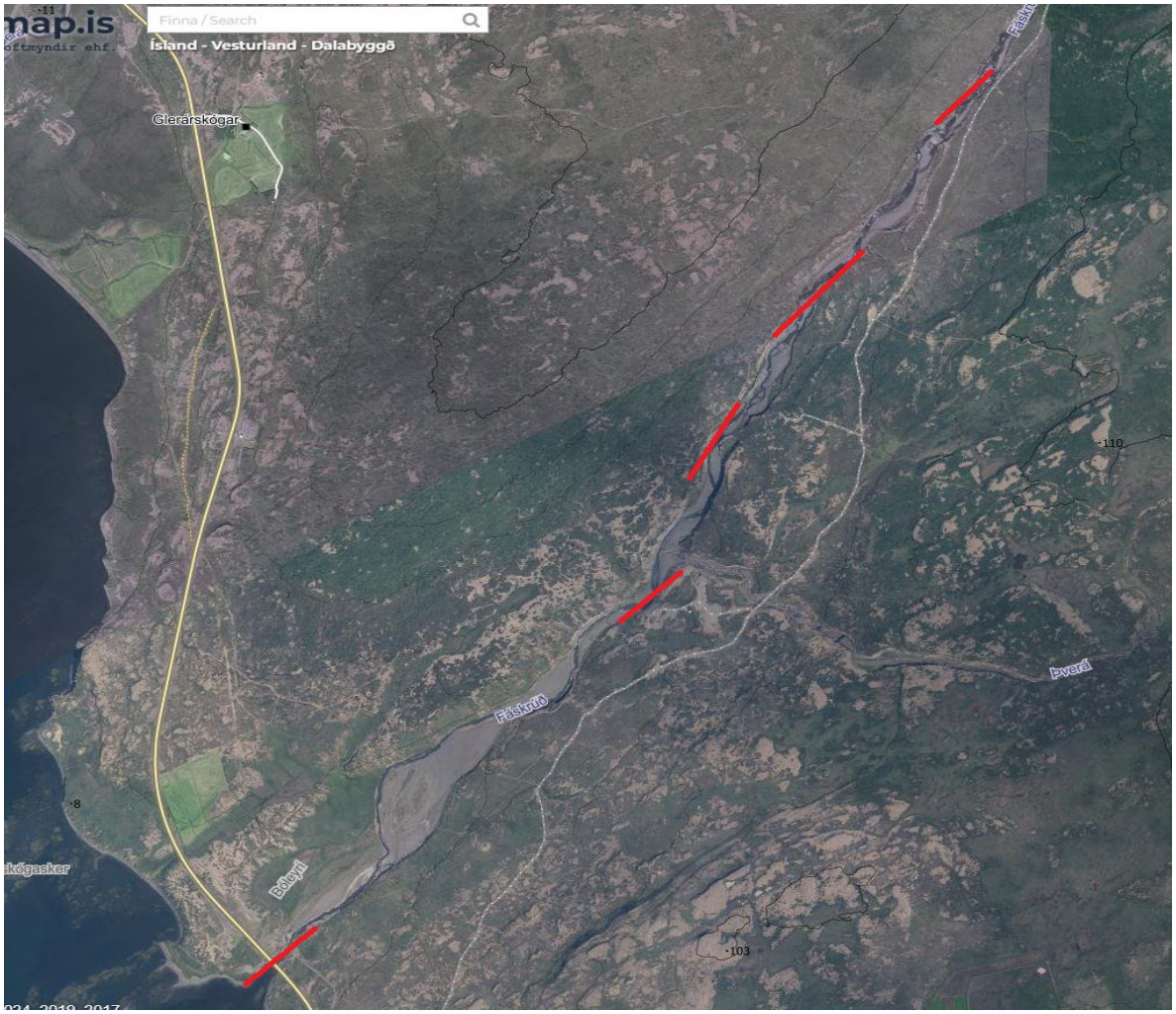


Table 4. Observed Atlantic salmon classified to gender and size in Fáskrúð.

River	Fáskrúð	Wild Atlantic Salmon								
Date	14.10.2025	Small (1-3kg)			Medium (3-7kg)			Large(7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
Lodge area		7	4					1		

Vatnsdalsá

Table 5. Observed Atlantic salmon classified to gender and size in Vatnsdalsá.

River	Vatnsdalsá	Wild Atlantic salmon								
Date	14.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
From lake outlet to fishladder		4	3	3	4	2				

Móra

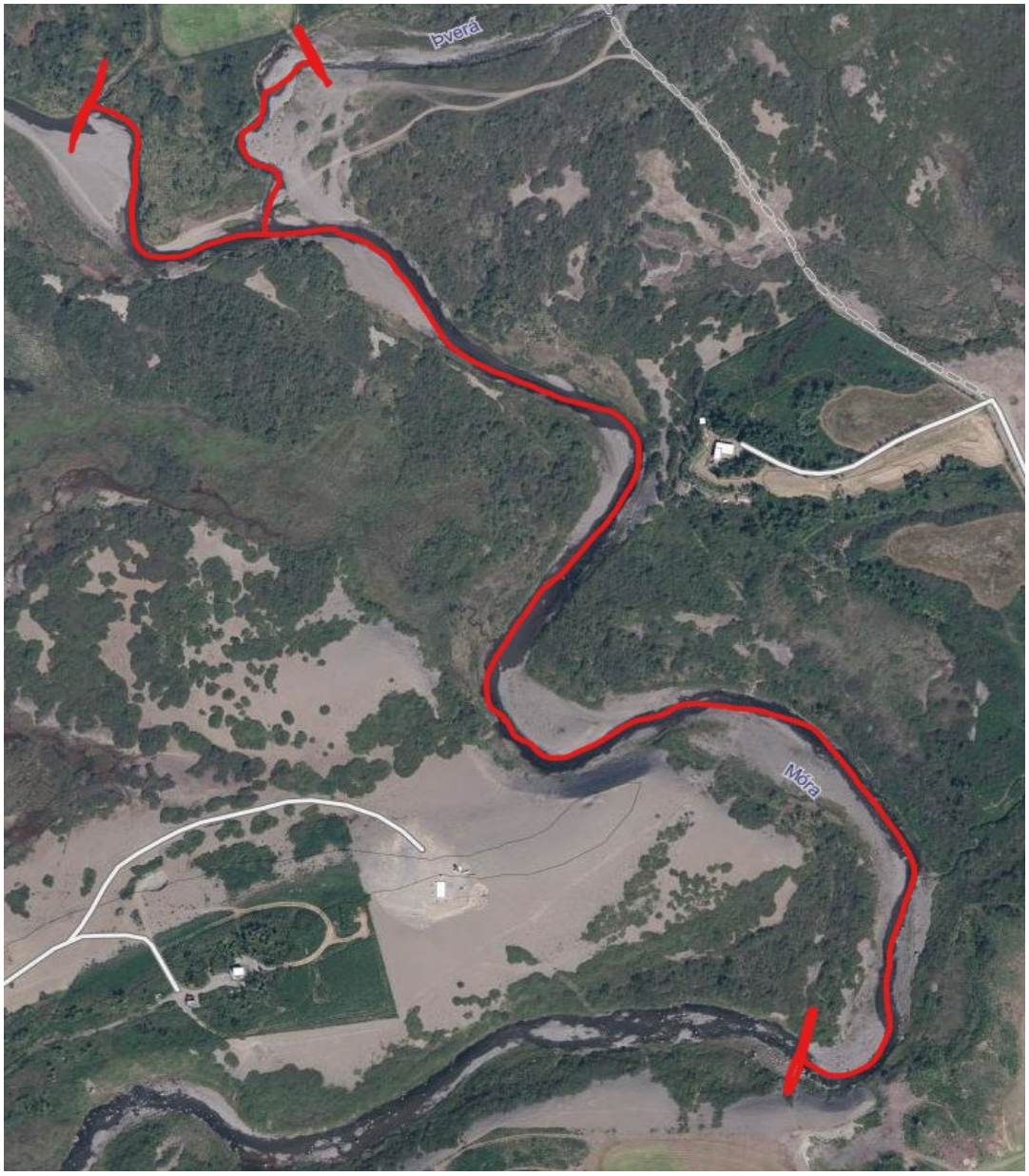


Table 6. Observed Atlantic salmon classified to gender and size in Móra.

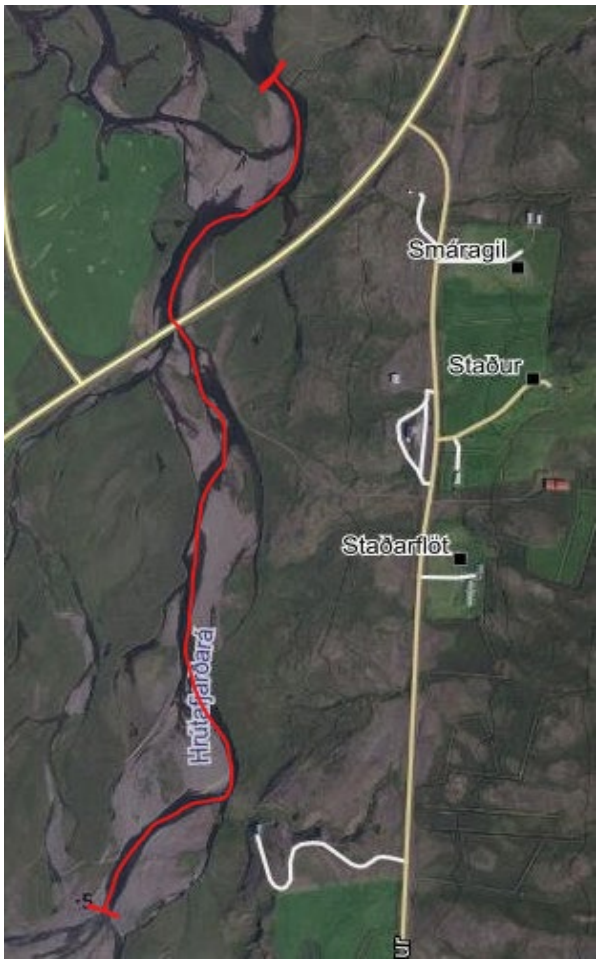
River	Móra	Wild Atlantic salmon								
Date	14.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
Middle part		10	8		3	2				

Fagradalsá

Staðarhólsá


Lambanes
Staðarhólsá

Hrútarfjarðará



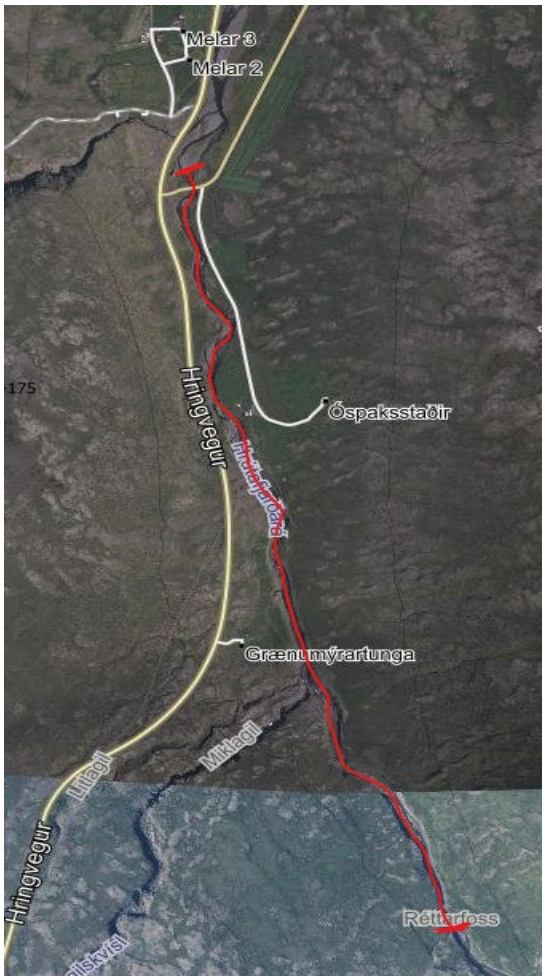


Table 7. Observed Atlantic salmon classified to gender and size in Hrútarfjarðará.

River	Hrútafjarðará	Wild Atlantic salmon								
Date	14.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
Selected pools and stretches		2	3	16	1	7	3	2		

Miðfjarðará

Table 8. Observed Atlantic salmon classified to gender and size in Miðfjarðará.

River	Miðfjarðará	Wild Atlantic salmon								
Date	15.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
Entire river		1	2	12			1			

Staðará

Table 9. Observed Atlantic salmon classified to gender and size in Staðará.

River	Staðará	Wild Atlantic salmon								
Date	15.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
Entire river		1	4			2		1		

Ísafjarðará

Table 10. Observed Atlantic salmon classified to gender and size in Ísafjarðará.

River	Ísafjarðará	Wild Atlantic salmon								
Date	15.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
From migration barrier (waterfall) and almost all the way down to the ocean		9	3		2					

Hvannadalsá

Table 11. Observed Atlantic salmon classified to gender and size in Hvannadalsá

River	Hvannadalsá	Wild Atlantic salmon								
Date	14.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
Individual pools		5	2							

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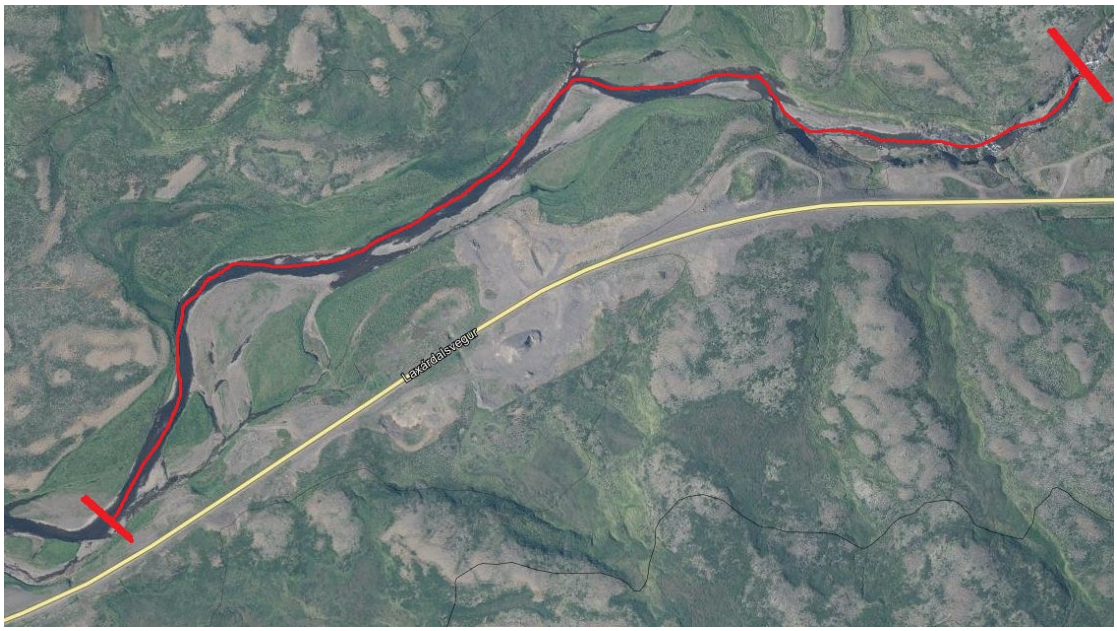
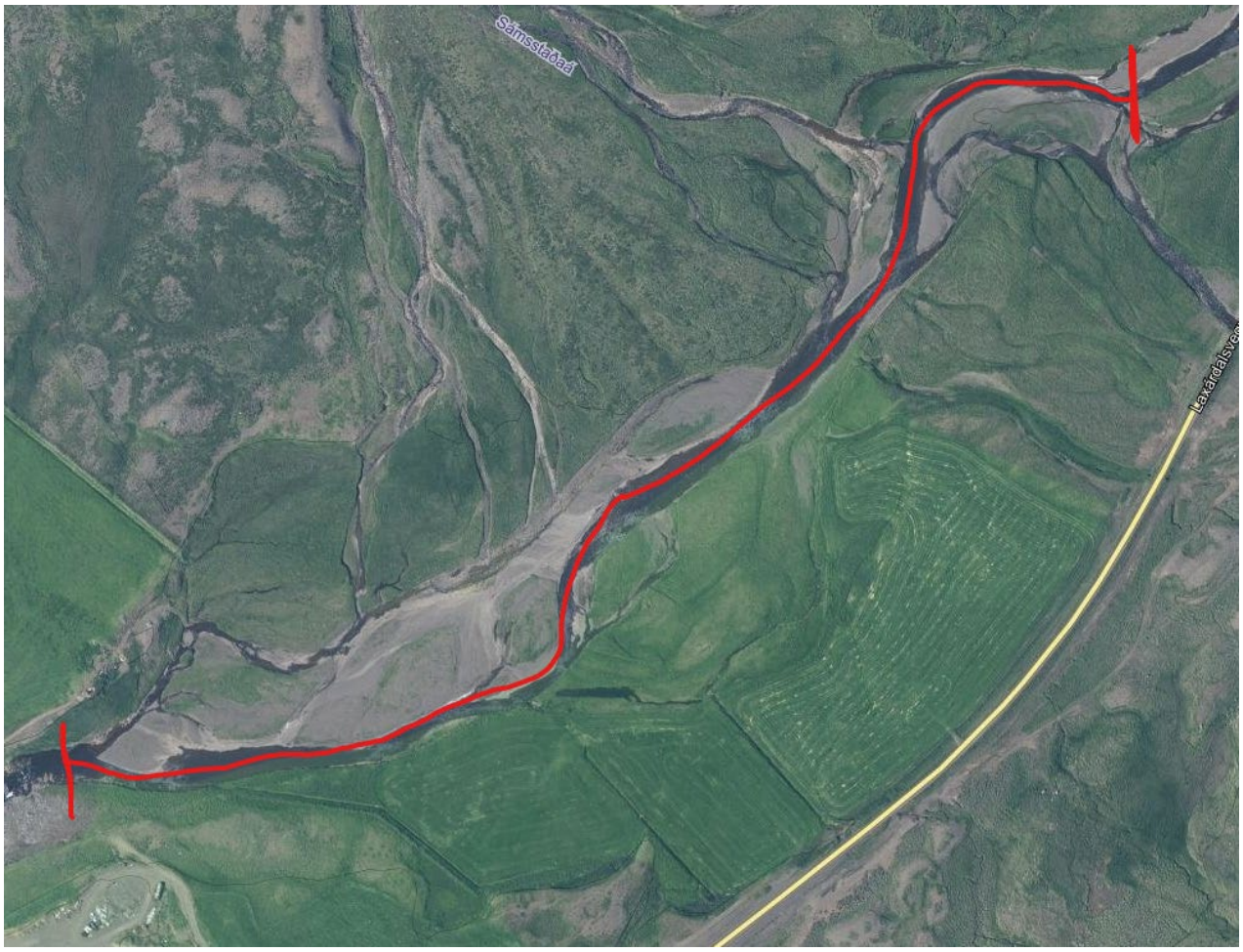
Laxá í Dölum




Sámsstaðaá

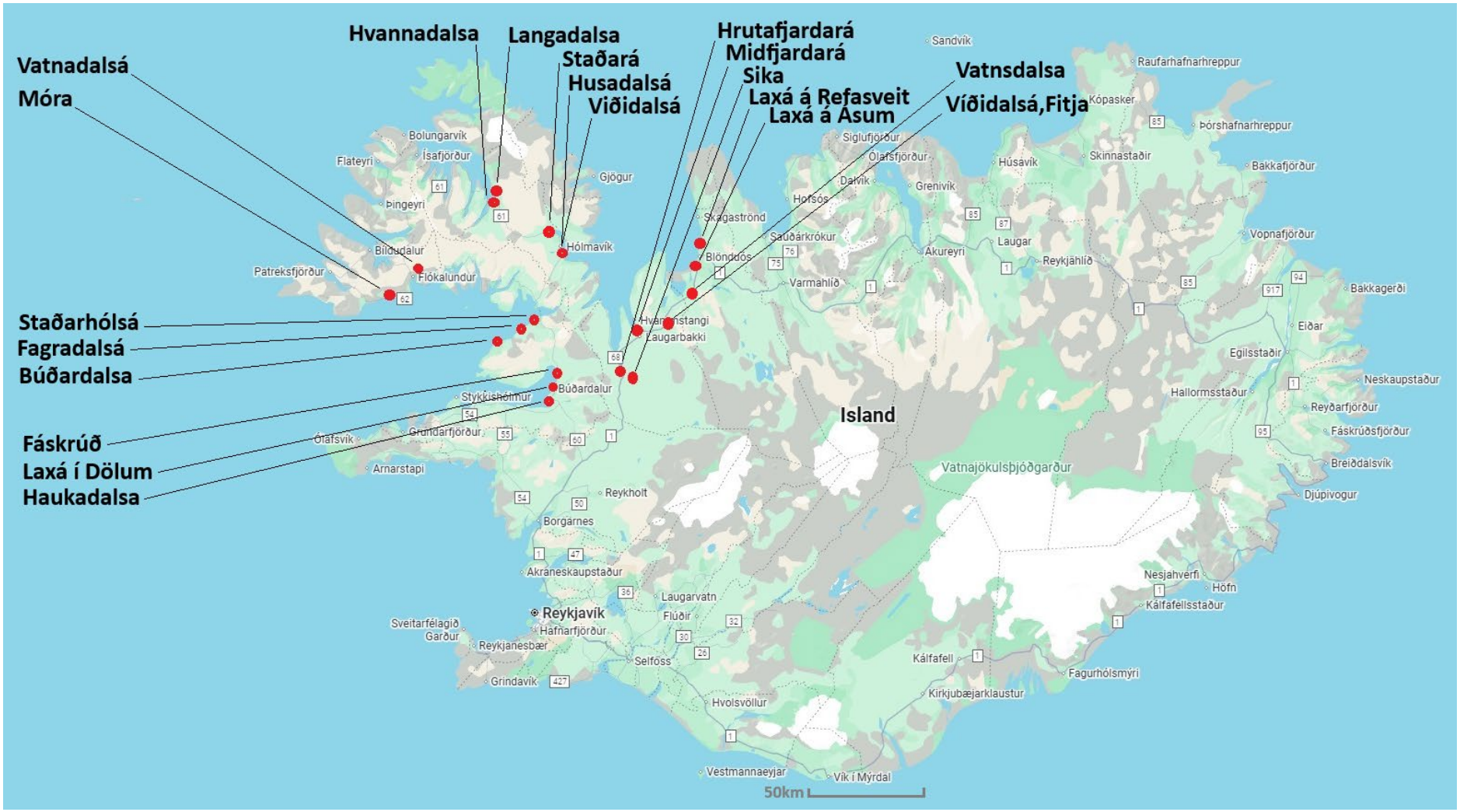

- Dalabyggð


Finna / Search
land - Vesturland - Dalabyggð
Brandarkot

Table 13. Observed Atlantic salmon classified to gender and size in Laxá í Dölum.

River	Laxá í Dölum	Wild Atlantic salmon								
Date	16.10.2025	Small (1-3kg)			Medium (3-7kg)			Large (7+kg)		
WP/zone		M	F	?	M	F	?	M	F	?
0		19	8	10		1	1			
1		12	7	14	8	6	1			
2		11	5	14	5	4	2	1		
3		4	2	1	2	2				
4		4	2	6	6	3			1	1
5		12	16		9	12				2
6					1	1				2

Appendix II – Study area



Appendix III – Summarized river table

River		Day of visit/survey	Visibility (m)	Number of divers	Type of coverage
1	Laxá i Dölum	1, 4	2-9	2-5	from c. 2km above fish ladder
2	Haukadalsá	1	8-10	3	pools
3	Staðarhólsá	1, 2	2	3	pools, reaches
4	Síka	1	<3	2	pools
5	Laxá í Ásum	1	<1,5	-	-
6	Laxá í Refasveit	1	<1,5	-	-
7	Viðidalsá	1, 2, 3	1,2	3	reaches
8	Fitja (trib. Viðidalsá)	1, 2	0,5-2,5	2	pool
9	Miðfjörðará	1, 3	0,5-2	3	pools, reaches
10	Vesturá (trib. Miðfjarðará)	3	<1	-	-
11	Hrútarfjarðará	1, 2, 3	4-2	2-3	pools, reaches
12	Fáskrúð	2	4-2	3	pools, outlet
13	Fagradalsá	2	6	2	entire river (from fish ladder)
14	Búðardalsá	2	6	2	entire river (from bridge)
15	Vatnsdalsá	2	8	3	pools, reaches
16	Móra	2	6	3	pools, reaches
17	Húsadalsá	2	10	3	entire river (from power plant outlet)
18	Viðidalsá (trib. Húsadalsá)	2	10	3	reaches
19	Vesterdalsá	3	<1	-	-
20	Staðará	3	7	2	pools, reaches
21	Isáfjardará	3	8-10	3	pools, reaches
22	Hvannadalsá	4	-	2	pools
23	Langadalsá	4	5	3	pool

Appendix IV – Analysed fish scales

Fish #001. Female (length 850mm). Classification: Farmed.

Fish #002. Male (length 840mm). Classification: Farmed or cultivated.

Health and well-being for animals and people

Norwegian Veterinary Institute

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