MAIB
MARINE ACCIDENT INVESTIGATION BRANCH

ACCIDENT REPORT

VERY SERIOUS MARINE CASUALTY | REPORT NO 4/2025 | FEBRUARY 2025

Grounding and capsize of the creel fishing vessel *Lexi Rose* (BF 370) on Melrose Point, north-east Scotland resulting in one fatality on 21 September 2023

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SUMMARY

At about 1109[1] on the 21 September 2023, the single-handed creel[2] fishing vessel *Lexi Rose* grounded and capsized in a cove on Melrose Point, Scotland. The skipper went overboard, suffered a significant head injury and drowned.

The skipper had been fishing close to shore in a 1m to 1.5m swell when *Lexi Rose* grounded. It is likely the outboard engine's lower assembly unit struck a rock and detached, resulting in an immediate loss of propulsion leading to the vessel's grounding and capsize.

The investigation found that *Lexi Rose*'s skipper was likely to have had very little time to take action to avoid a grounding and might not have realised that the outboard engine's lower assembly unit had been lost. As the skipper was operating alone he was unable to take the necessary actions that would have improved his chances of survival, such as setting an anchor; raising a "Mayday" distress and donning a personal flotation device[3]. The investigation could not determine what steps the skipper routinely took on board to manage the increased hazards of grounding and capsize when operating in a swell close to shore.

Image courtesy of HM Coastguard

Lexi Rose

[1] All times are universal time coordinated.

[2] A trap used to catch shellfish, also known as a pot.

[3] A lifejacket or buoyancy aid of at least 150 newtons (N) or a wearable buoyancy device of at least 50N that is intended to be worn constantly in case of falling overboard, rather than for intentionally entering the water or survival craft during an abandon ship scenario.

FACTUAL INFORMATION

Narrative

On 21 September 2023, Sandy Alexander, the skipper of the fishing vessel *Lexi Rose* left his home in Fraserburgh, Aberdeenshire, Scotland and drove to Banff to prepare his vessel for a day's fishing. At 0837, *Lexi Rose* left Banff harbour, and about 3 minutes later the skipper was called by a relative who had seen the vessel leaving. They discussed the weather and their individual plans for the day: the forecast was Beaufort force 5 winds from the south-south-west with a 1m residual swell from the north; weather permitting, the skipper indicated that he intended to check his pots. Visibility was good and the sea was smooth. The skipper steamed *Lexi Rose* towards his usual fishing area to the east of Macduff **(Figure 1)**, and then started to work the creels from west to east along the coast.

At 1051, the skipper of the fishing vessel *Chance* phoned the skipper of *Lexi Rose* while both vessels were fishing near Macduff. *Lexi Rose*'s skipper was hauling a creel so did not answer, but returned the call a minute later when the task was finished. The two skippers discussed the weather and the conditions, particularly the movement of the swell on the rocks, but agreed it was still safe to continue working. They decided to work as a pair so that they could provide support to each other if required, and *Chance* began to steam eastwards towards *Lexi Rose*.

As *Chance* reached the easternmost extent of its creels the skipper heard a panicked call on very high frequency (VHF) radio channel 12 from the skipper of *Lexi Rose*: "*Lifeboat, lifeboat, lifeboat. We're ashore, engine stopped, need a lifeboat*". The skipper of *Chance* immediately responded that they were on their way and steamed eastwards at full speed towards the area where they anticipated *Lexi Rose* was fishing. Shortly after, *Lexi Rose*'s skipper called again on VHF channel 12, sounding increasingly panicked: "*I need a lifeboat, she's going, she's going!*".

At 1110, the skipper of *Chance* tried to call the Macduff harbourmaster via mobile phone, believing the harbourmaster could call out the lifeboat without making an emergency call to the coastguard. After four to five rings with no answer, the skipper decided to call the lifeboat coxswain directly but the call was not answered. At 1112, the harbourmaster returned the call. At about the same time, the skipper of *Chance* saw the upturned blue hull of *Lexi Rose* in a small cove at the base of Melrose Point. At 1116, the coastguard was alerted by a member of the public.

The skipper of *Chance* decided it was not possible to enter the cove due to the vessel's draught. Deeply concerned for the safety of the skipper of *Lexi Rose*, the skipper of *Chance* immediately started to search the area outside the cove in case *Lexi Rose*'s skipper had been swept out. At 1122, *Chance*'s skipper saw the inflated liferaft close to *Lexi Rose*.

At 1137, the Macduff inshore lifeboat arrived at the cove, but could not enter it due to a combination of sea and swell. The crew could not see *Lexi Rose*'s skipper from their position on board the lifeboat.

At 1200, coastguard helicopter *R151* arrived on scene and quickly located a person, who was later identified as *Lexi Rose*'s skipper, floating in the cove **(Figures 2** and **3)**. The skipper was not wearing a personal flotation device (PFD) and had been found in shallow water near rocks, 5m to the west of *Lexi Rose*. At 1204, a winchman entered the water to recover the unconscious skipper to *R151*. During the flight to Aberdeen *Lexi Rose*'s skipper was declared deceased.

On 27 September 2023, following several days of adverse weather, the wreck of *Lexi Rose* was recovered.

Images courtesy of Google Maps

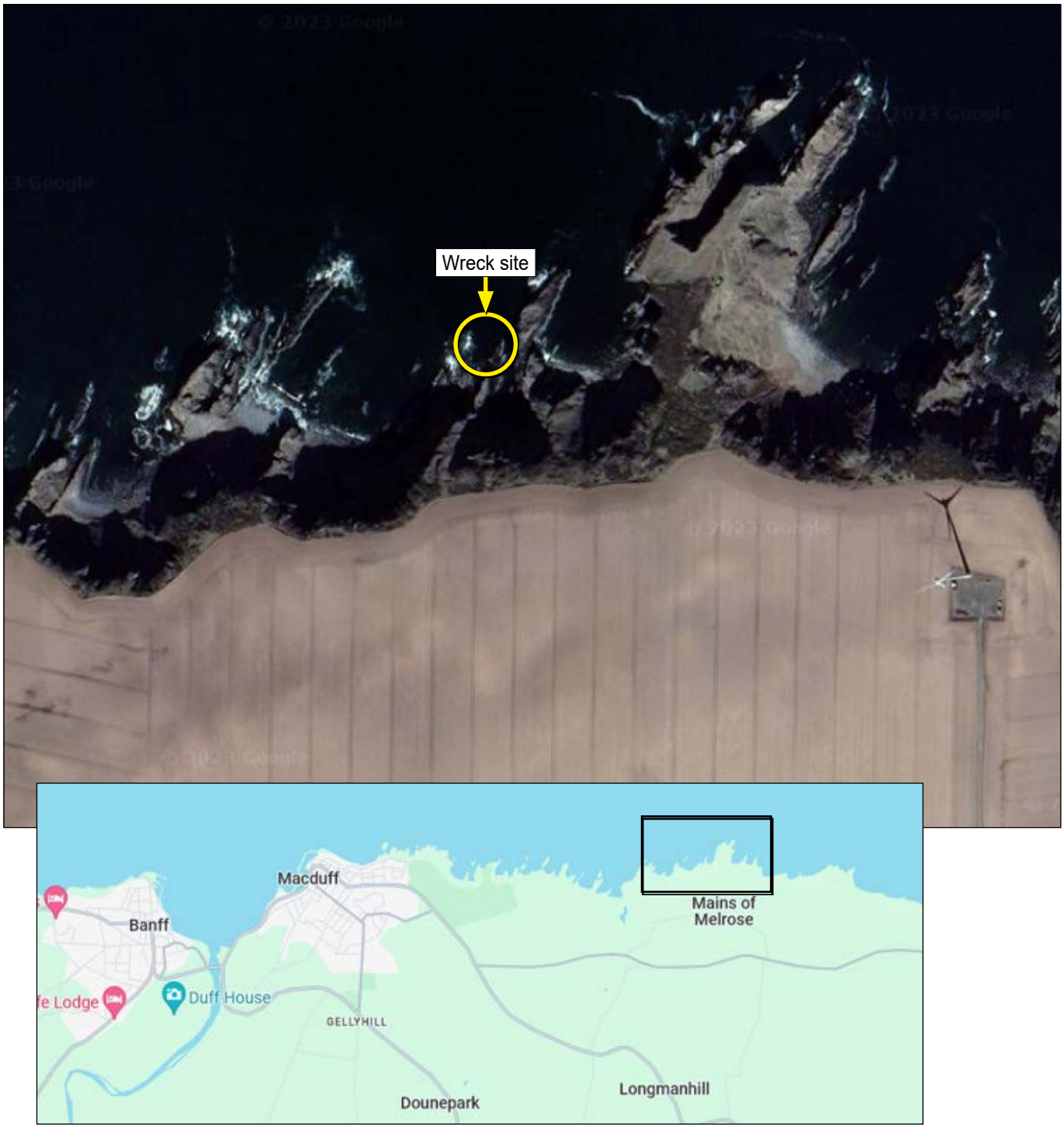

Figure 1: Area where *Lexi Rose* was fishing before the accident

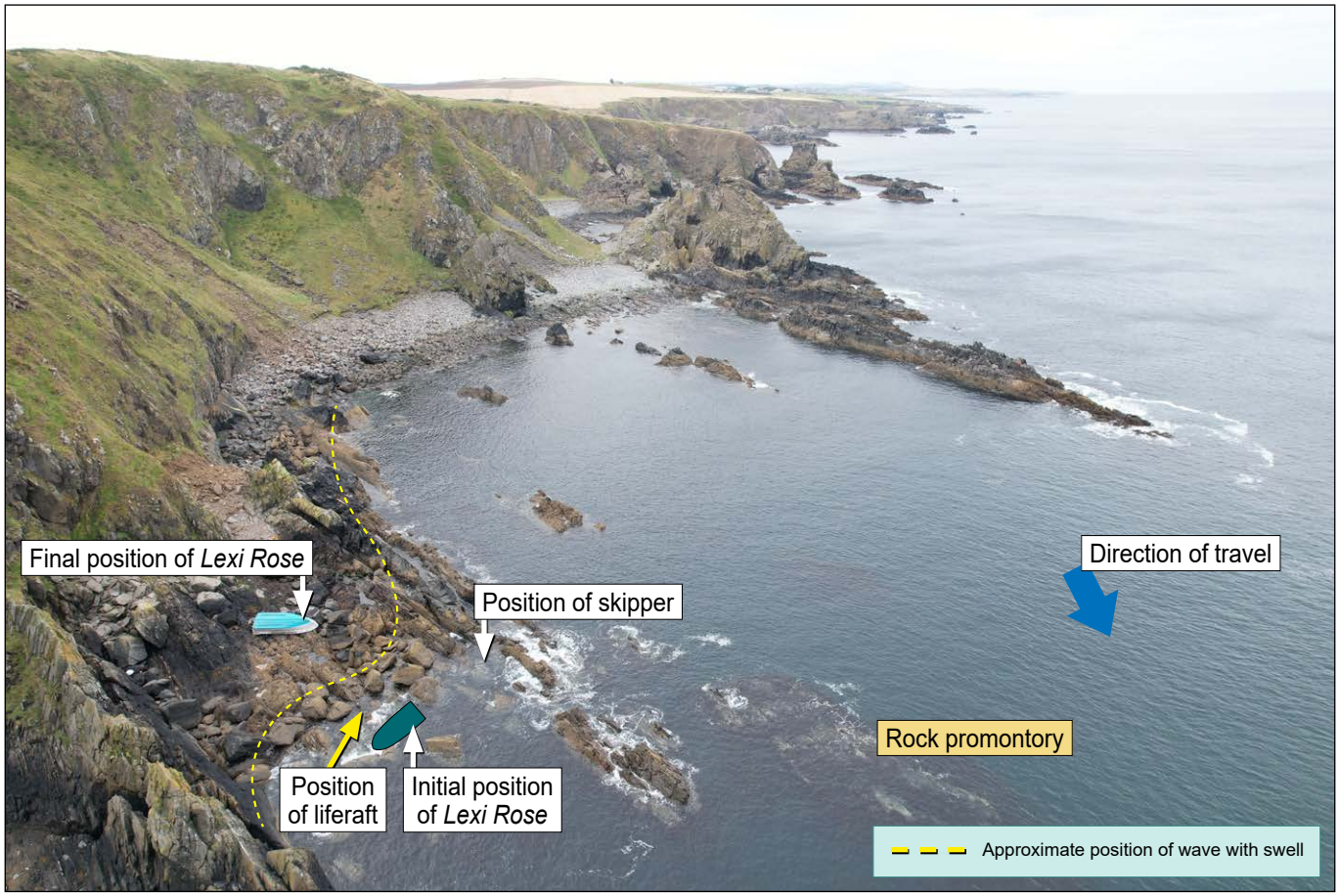

Figure 2: Position of *Lexi Rose* and skipper observed by *R151* crew (looking west)

Image courtesy of HM Coastguard

Figure 3: Position of *Lexi Rose* and liferaft after the recovery of the skipper

Environmental conditions

On the morning of 21 September 2023, the conditions in the area to the east of Macduff were a south-south-westerly Beaufort force 5 wind, slight seas and a long northerly swell of approximately 1.1m. The air temperature was 12°C and the sea temperature was 13.1°C. Low tide at Macduff was at 1028, with negligible tidal stream.

Wreck inspection

The post-recovery inspection of the wreck of *Lexi Rose* found that the outboard engine's lower assembly unit was missing, the wheelhouse had been crushed by wave action at the wreck site, and the cat catcher had been ripped off. No creels or catch were found in the wreckage **(Figure 4)**. One of two electronic plotters thought to be on board the vessel was found in the wreckage. The aluminium hull was intact, with no signs of any breaches or impact damage.

Figure 4: *Lexi Rose* post-recovery and damage to the deck

The skipper

Lexi Rose's owner and skipper, Sandy Alexander, was 69 years old and had skippered commercial trawlers for over 40 years. Since retiring, he had used *Lexi Rose* to stay active and involved in commercial fishing. Sandy was a respected and successful lobster fisherman who knew the local waters well. As an active runner, he was fit and was not taking any medication at the time of the accident. Sandy was a non-swimmer, who was known to occasionally wear a PFD while fishing.

Sandy had completed all the required training and certification to work on a UK registered fishing vessel. He mostly operated single-handed, but used a crewman when available.

The postmortem stated that the cause of Sandy's death was a significant head injury and drowning.

Lexi Rose

Lexi Rose was a 7.3m aluminium single-hulled fishing boat built in the Alubat shipyard on the west coast of France in 1990. The skipper had purchased the commercially-registered fishing vessel from the Channel Islands in 2016.

Lexi Rose had an aluminium working deck, with an aluminium cat catcher[4] fitted across the transom and aft deck where the liferaft was stowed. A hydraulic pot hauler was mounted forward on the starboard side next to a small wheelhouse, and mackerel jiggers were rigged aft on the cat catcher and forward on the side rails and wheelhouse **(Figure 5)**. An anchor was normally kept in the port stern locker, but it was not possible to determine whether an anchor was carried in the same location on the day of the accident. No anchor was found after the accident.

[4] A platform at a fishing vessel's stern, usually used for stowing pots.

Image courtesy of J Thomson 2023

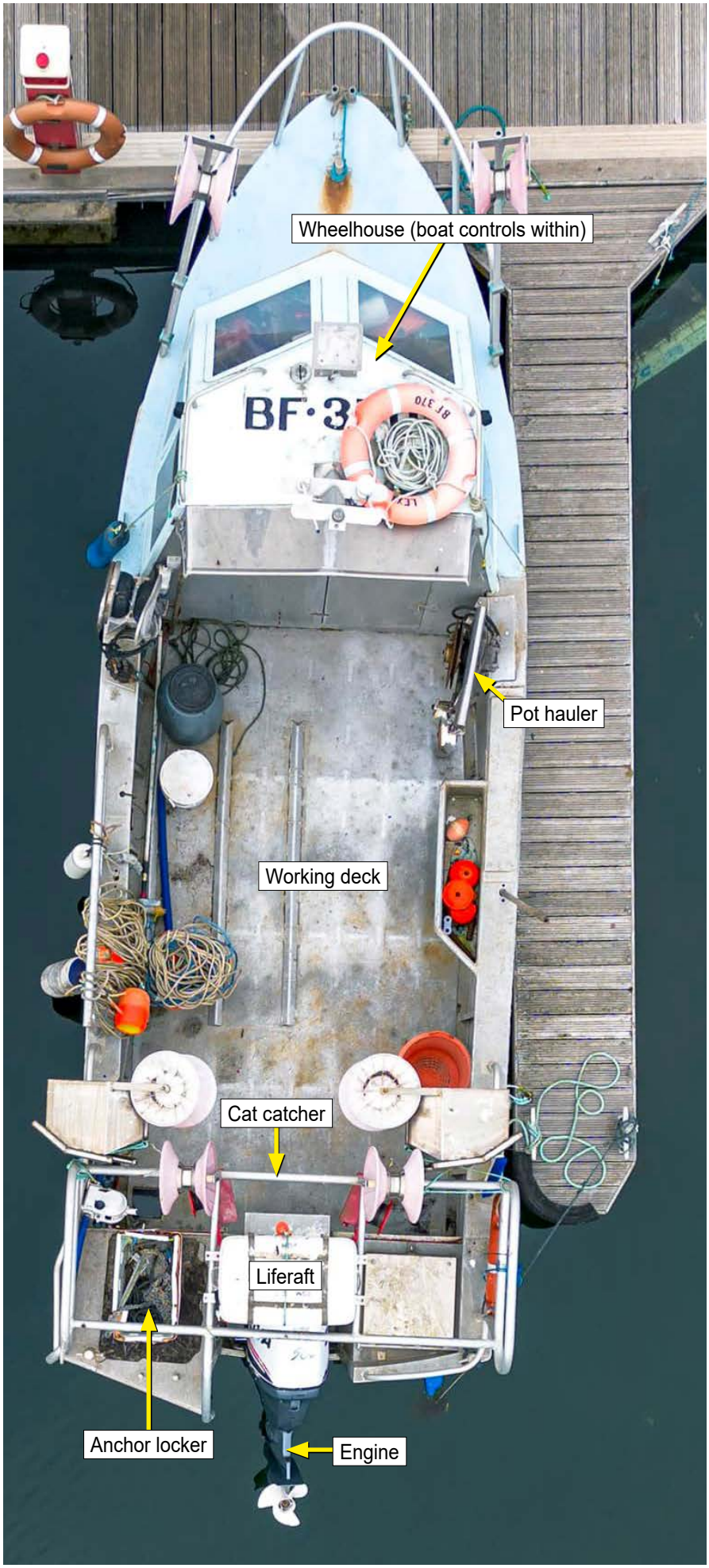

Figure 5: *Lexi Rose*'s deck arrangement

Lexi Rose was powered by a centrally-mounted 50 horsepower outboard engine that was controlled from the wheelhouse **(Figure 5)**. There was no secondary propulsion. The vessel's deepest point was the outboard engine's lower assembly unit, which projected approximately 150mm below the keel.

Lexi Rose complied with the regulatory requirements for a vessel of its size and type. Three PFDs and an unregistered personal locator beacon (PLB)[5], which was stored in a plastic container, were normally kept in the wheelhouse. It is unknown whether the PLB was carried on the day of the accident, and the investigation was unable to determine its location. The vessel was equipped with a VHF digital selective calling (DSC)[6] radio, and had an electronic chart plotter for navigation. Historic plotter tracks were recovered, but none for the day of the accident.

Fishing operations

Lexi Rose's skipper primarily fished for lobster but occasionally fished in open water for mackerel, usually in the spring at the start of the lobster season. He would fish for lobster using individually placed single creels that comprised a marker buoy at one end and a line to the creel. The process of hauling a creel would begin with manual recovery of the marker buoy, the line then being placed on the hauler and the creel pulled to the side of the vessel for manual recovery. The creel would then be emptied of catch and rebaited and immediately reshot over the side unless it was being moved to another area.

The skipper operated *Lexi Rose* 3 to 5 days a week during daylight hours and fished within 3 nautical miles of Banff harbour where the vessel was berthed when not in use. The skipper usually departed the harbour between 0700 and 0800 and returned around lunchtime or early afternoon dependent on the weather.

Fishing in the Banff and Macduff area was strongly affected by wind direction, with the optimal wind direction being offshore so small vessels could access the rocky area close inshore that lobsters favoured. Local fishermen reported they could fish with a westerly or easterly wind but would avoid a northerly wind as this tended to take them too close to the rocks. The skipper was reported to regularly access mobile phone applications to check weather conditions and he had specifically selected *Lexi Rose* for its shallow draught, which allowed access into the small inshore coves **(Figure 6)**.

If a vessel lost propulsion inshore, common practice among local fishermen was to drop an anchor to stop the vessel moving. Some rigged their anchors to enable quick release from the main deck or wheelhouse.

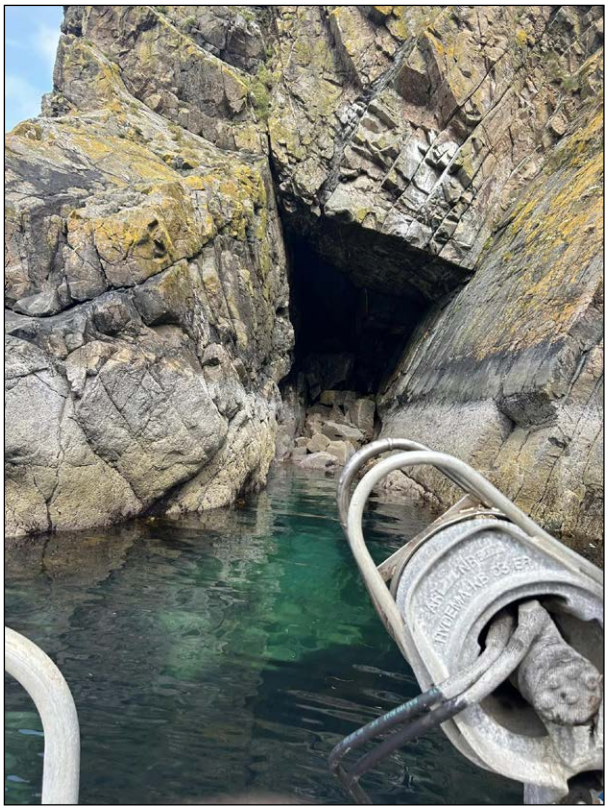

Image taken by Sandy Alexander

Figure 6: *Lexi Rose* fishing close inshore

[5] A device which, when activated, alerts the search and rescue services as to its position to satellites on 406 megahertz (MHz) and locally on the 121.5MHz distress frequency.

[6] A digital alerting system that, on the press of a single button, can send a vessel's identity, position and the nature of its distress to all DSC-equipped vessels and shore stations within range.

Engine assessments

The investigation contracted independent assessments of the outboard engine fracture surfaces, internal components and central processing unit (CPU). Analysis of the fracture surfaces of the lower assembly unit indicated a break consistent with a single impact on the port side. Assessment of the engine components and the CPU determined that the engine lost propulsion 4 minutes before it stopped. This type of outboard engine was known for its quiet running at high revolutions.

Certification and regulation

Merchant Shipping Notice (MSN) 1871 Amendment No.2 (F), *The Code of Practice for the Safety of Small Fishing Vessels of less than 15m Length Overall* established the mandatory wearing of PFDs on fishing vessels in 2018, and the requirement for each vessel to carry an Emergency Position Indicating Radio Beacon (EPIRB)[7] or individual crew to carry a PLB applied from 1 October 2019. These requirements formed part of the conditions for issuing a Small Fishing Vessel Certificate (SFVC).

Lexi Rose's SFVC had been issued by the Maritime and Coastguard Agency (MCA) on 20 August 2021 and was valid until 7 July 2026. At the time of the vessel's survey its freeboard was measured as 860mm.

Marine Guidance Note 571 (F) *Fishing Vessels: Prevention of Man Overboard* introduced the requirement for vessels under 15m to conduct regular man overboard drills, including vessels that operated single-handed.

Industry guidance for single-handed fishing operations

The MCA's Fishermen's Safety Guide listed several issues with single-handed operations such as no one to help to raise the alarm or assist in the recovery of a person in the water. The guide also stated that fishermen must wear a PFD or a safety harness if the risk of falling overboard could not be mitigated. The guide referred to the hazards of grounding and capsize from overloading but not while fishing close inshore. It also highlighted that falling overboard was *always likely to result in death due to cold water shock and limited survival time in the sea*.

The MCA guide Single Handed Fishing stated:

> *…fishing solo is risky so you need to think about what might go wrong when there's no-one around to help you if, for example: you get injured; there's a sudden vessel loss; you fall overboard.* [sic]

On PFDs, the guide instructed single-handed fishermen to:

> ***Always** wear your PFD and make sure it has enough buoyancy to turn you on your back, keeping your mouth clear of the water, even if you become unconscious.*

The Seafish Potting Safety Industry Advisory Note[8] published in January 2011 outlined fatalities in the sector and cautioned that the practice of operating single-handed *may increase the risk of accidents and certainly reduces the chances of rescue should an accident occur.*

Similar accident

Fishing close to the limits of safe operation was identified as a safety issue for under 10m registered fishing vessels during the investigation into the capsize of the fishing vessel *Anna-Marie II*, which broached in breaking waves as it crossed a river bar (MAIB report 12/2020[9]). The skipper struck his head during the capsize, which might have affected his ability to swim. The skipper was not wearing a PFD and drowned.

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[7] A device which, when activated, alerts the search and rescue services as to its position to satellites on 406 megahertz (MHz) and locally on the 121.5MHz distress frequency.

[8] https://www.seafish.org/document/?id=1f95aca6-f029-4f58-8125-0a2a9dcb312c

[9] https://www.gov.uk/maib-reports/capsize-of-fishing-vessel-anna-marie-ii-with-loss-of-1-life

ANALYSIS

Overview

Lexi Rose's skipper entered the water when the vessel grounded on rocks and capsized in a small cove on Melrose Point. During the capsize the skipper struck his head either on the vessel or the rocks and sustained an injury that caused him to become unconscious and drown. Once the vessel lost propulsion at the entrance of the cove the skipper was likely to have had very little time to take emergency action. The skipper's single-handed operation of *Lexi Rose* significantly reduced his ability to carry out necessary survival tasks such as anchor, raise a "Mayday" distress or don a PFD.

Entry into the water and head injury

The exact circumstances and capsize mechanism are unknown. However, when *Lexi Rose* was found the vessel was already inverted in shallow water and the skipper was close to the wreckage **(**see **Figures 2** and **3)**. There were no indications that the skipper had tried to self-rescue from the water or climb onto the rocks. It was not possible to determine what caused the skipper's head injury.

Hazard control

The skipper chose a vessel with a shallow draught so he could fish close inshore, but it is unknown whether he had fully considered the impact of exposure to the hazards of grounding and capsizing. Operating single-handed further increased the skipper's exposure to the hazards of grounding and capsizing while simultaneously reducing his ability to respond to any incident.

The crew involved in the *Anna Marie II* accident were similarly used to operating a vessel in a hazardous environment and the skipper did not fully appreciate the risk of capsize in the prevailing conditions. The combined effect of the environmental conditions and loss of propulsion so close to shore meant that the skipper of *Lexi Rose* did not have enough time to mitigate the risk of grounding, capsize or entering the water other than by sending a short radio message. It is likely that the skipper had become used to the hazards of working close inshore in this area and did not fully appreciate how quickly events could escalate into an emergency situation.

Environmental appraisal

The skipper had appraised the weather and environment before leaving Banff harbour, had checked for updates during *Lexi Rose*'s transit to the fishing area, and had discussed the wind direction with the skipper of *Chance* via mobile telephone. The wind was from the south so was favourable for fishing at Melrose Point as vessels would be in the lee of the shore. The two skippers agreed that the residual northerly swell presented a hazard and therefore decided to work in proximity to each other.

The skipper of *Lexi Rose* was aware of the hazard that the swell presented when working close into the shore but started working creels before *Chance* was near enough to provide support if required. It is impossible to know what prompted this decision. As a fisherman with intimate knowledge of the coast to the east of Macduff, he would have known the areas where grounding was possible so it is likely that he was caught out by the fluctuating height of the waves caused by the swell.

Loss of propulsion

Lexi Rose grounded on the rocks because the vessel was swept into the cove having lost propulsion while transiting between creel locations. The skipper usually transited between individually placed creels at a speed of 3 to 5 knots and it is likely that the loss of propulsion was caused as the vessel struck an underwater obstacle or rock promontory, which sheared the lower assembly unit away from the outboard engine's upper casing **(**see **Figure 2)**. The shearing force was likely caused by the combination of the weight of *Lexi Rose* and the 1m to 1.5m swell, rather than the speed of the vessel alone.

Single-handed operation

Lexi Rose lost propulsion and grounded within approximately 4 minutes. Allowing for a couple of minutes to make the last two radio calls, once grounded the skipper had little time to take avoiding action. In this case a call on the local channel was used to raise the alarm, not a “Mayday” distress transmitted on VHF channel 16. It is unknown whether the skipper considered sending a “Mayday” distress; however, it is probable that the skipper reverted to using the local channel in the developing situation so did not call “Mayday”. The radio on *Lexi Rose* had a DSC function but it was not used.

The skipper’s ability to react to a developing situation was limited because he was operating single-handed. Focusing on the task of hauling and shooting creels and moving to the next creel might have distracted him from noticing the changing environment around him. The skipper was unable to take all possible actions to improve his chances of survival. Although there might have been time to don a PFD and/or press the DSC the skipper did neither, possibly because of the limited time available or difficulty reaching the wheelhouse. As stated in the MCA’s Single Handed Fishing guidance, sudden vessel loss and entry into the water is possible while creel fishing and safety hazards in single-handed fishing increase for the reasons given above. It cannot be known if these actions would have been sufficient to ensure the skipper’s survival.

Dropping an anchor close to shore was unlikely to have held the vessel. Propulsion would have been unavailable as the engine’s lower assembly unit had detached. The accepted method used by lobster fishermen operating near Macduff to prevent grounding and capsize on the loss of propulsion was to drop an anchor to hold the vessel away from the shore. Although this had enabled the rescue of creel fishing vessels in the past, no evidence was found of an anchor being used during this accident. Whether it is a suitably effective method in shallower water under the action of waves is less certain; however, increasing the distance between a vessel and the shore offers more time for avoiding action to be effective.

Exposure to the hazards of grounding and capsize is high during inshore creel fishing, particularly when the conditions result in waves breaking onshore. The risk of a loss of propulsion when working in swell close to shore should be considered and appropriate mitigation measures taken.

Personal flotation devices

The skipper was a non-swimmer who occasionally wore a PFD but chose not to wear one on the day of the accident. No evidence of the skipper experiencing an overboard situation was found. It is likely that events unfolded too quickly for him to don a PFD in time to improve his chances of survival.

The postmortem indicated that the skipper was likely to have fallen unconscious either immediately before or shortly after entering the water, which would have prevented him from keeping his airway clear. No evidence was found to indicate that the skipper had tried to self-rescue from the water. An effective mitigation for keeping an airway clear is to wear a PFD as it keeps the head above water. Once the skipper had fallen overboard from *Lexi Rose* and been knocked unconscious, without a PFD his chances of survival even in shallow water were reduced.

CONCLUSIONS

- The skipper of *Lexi Rose* drowned because he sustained a significant head injury during the vessel capsize that rendered him unconscious immediately before or shortly after he entered the water, and he was not wearing a PFD to maintain his airway.
- It is likely that the skipper had become used to the hazards of working single-handed close inshore and did not fully appreciate how the combined effect of the environmental conditions and a loss of propulsion could quickly escalate into an uncontrollable emergency situation.
- Although the skipper knew the areas where grounding was possible, it is likely that he was caught out by the fluctuating height of the waves caused by the swell.

- The loss of propulsion was likely caused as the vessel's outboard motor struck an underwater obstacle or rock promontory while transiting between creel locations. The resultant shearing force was likely caused by the combination of the weight of the vessel and the 1m to 1.5m swell at the time.
- The vessel was equipped with a VHF DSC radio but it is probable that, in the developing situation, the skipper reverted to use of a local radio channel to raise the alarm rather than transmitting a formal "Mayday" distress.
- The skipper was unlikely to have had time to take all possible actions that might have improved his chances of survival such as setting an anchor; raising a "Mayday" distress; and donning a PFD.
- The skipper's chances of survival would have been improved had he been wearing a PFD.

ACTION TAKEN

MAIB actions

The MAIB has issued a safety flyer to the fishing industry highlighting the lessons to be learned from this accident.

RECOMMENDATIONS

Given the existing industry guidance on the risks of single-handed fishing operations, no recommendations for single-handed fishing are made in this report.

VESSEL PARTICULARS	
Vessel's name	*Lexi Rose*
Flag	UK
Classification society	Not applicable
IMO number/fishing numbers	BF 370
Type	Fishing vessel, creel fishing
Registered owner	Privately owned
Manager(s)	Privately managed
Year of build	1990
Construction	Aluminium
Length overall	7.29m
Registered length	7.29m
Gross tonnage	2.05
Minimum safe manning	Not applicable
Authorised cargo	Not applicable

VOYAGE PARTICULARS	
Port of departure	Banff, Aberdeenshire, Scotland
Port of arrival	Banff, Aberdeenshire, Scotland
Type of voyage	Fishing
Cargo information	Not applicable
Manning	1

MARINE CASUALTY INFORMATION	
Date and time	21 September 2023 at about 1109
Type of marine casualty or incident	Very Serious Marine Casualty
Location of incident	Melrose Point, Aberdeenshire, Scotland
Place on board	Working deck
Injuries/fatalities	One fatality
Damage/environmental impact	Nil
Vessel operation	On passage
Voyage segment	Transit
External & internal environment	Wind south-south-westerly Beaufort force 5; sea state 2 to 3; sea temperature 13.1°C; slack tidal stream
Persons on board	1