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**Evidence-based herding protocol for post-refloat guidance
Juvenile humpback whale, Kirchsee, Insel Poel**

16 April 2026. The animal is alive at the date of this document.

Why herding is as critical as the refloat itself

The juvenile humpback at the Kirchsee has been stranded or semi-stranded for approximately three weeks across multiple locations in the western Baltic. He has re-stranded after each previous displacement, including after the Sea Shepherd Deutschland intervention at Trave/Haffkrug on 3 March 2026 and after the excavator-assisted refloat at Niendorf on 26 March 2026. Each time, the animal moved a short distance and grounded again, demonstrating that he is unable or unwilling to navigate independently toward open water. A successful physical refloat from the Kirchsee sandbank is therefore only the first step. Without immediate, sustained, and competent herding guidance toward the open Baltic and ultimately the Atlantic, the animal will almost certainly re-strand in the complex geography between Poel and the open sea.

The area between Poel and the Atlantic is among the worst possible environments for an unguided juvenile humpback. The Wismar Bight, the Mecklenburg Bight, the Fehmarn Belt, the Kattegat, and the Skagerrak each contain enclosed bays, shallow sandbars, narrow passages, and navigational hazards. The animal has already demonstrated that he enters dead-end bays. Leaving him unattended at any point after the refloat invites a repeat of the cycle that brought him to the Kirchsee in the first place.

The Australian parallel is instructive. On approximately 14 April 2026, a young humpback whale (~9 m) was successfully refloat from a sandbar in the Coolongolook River, New South Wales, by Sea World Foundation, NPWS, and ORRCA teams. There are unconfirmed reports that the animal re-stranded within approximately 12 hours ago (confirmation pending at the time of writing). If confirmed, this underscores exactly the point this brief makes: refloating alone

does not solve the problem for a disoriented juvenile in unfamiliar waters. Guidance out of the hazard zone is the second half of the rescue.

The original stranding at Poel was itself the result of inappropriate herding. The animal was displaced from earlier stranding locations without being guided to safety. The rescue team has a responsibility to ensure that the same failure does not repeat. Effective herding is not an optional add-on to the operation. It is a precondition of success.

Herding protocol

1. Immediate transition from refloat to herding

The moment the animal is free-swimming after the refloat, the herding operation begins. There must be no gap between the refloat phase and the herding phase. The rescue team should have boats, personnel, and acoustic equipment pre-positioned for herding before the physical refloat commences. The herding flotilla forms up while the refloat is in progress and transitions to active guidance the instant the animal clears the sandbank. The documented cases demonstrate that animals who are left unattended after refloat frequently re-strand within hours (Humphrey 1985 was lost overnight and had to be relocated the following morning; the Gare Loch bottlenose whales evaded the herding line repeatedly and may have re-entered the loch had the operation not continued).

2. Flotilla formation and deterrent methods

The standard formation documented across all successful herding cases is a semicircle or line of boats positioned behind and to the sides of the animal, with the desired direction of travel left open as the only unblocked path. The formation moves with the animal, maintaining a consistent acoustic and physical barrier that discourages turning back.

Deterrent methods with documented effectiveness:

(a) Oikomi (pipe-banging): steel pipes suspended in the water and struck rhythmically by volunteers in the boats. This is the single most consistently effective deterrent across all documented cases. It was the primary technique in the Humphrey rescue (1985), the Delta and Dawn rescue (2007), and the Everglades pilot whale herding (2013). The Japanese fishing technique it derives from (oikomi) has been used for centuries to drive cetaceans, and its adaptation for rescue purposes was first documented by the Marine Mammal Center in 1985.

(b) Engine noise: boats revving engines in formation behind the animal. Documented in every herding case. Less effective as a sole technique (the Gare Loch operation used engine noise alone and achieved only partial success) but effective as part of the combined approach.

(c) Water blasts: high-powered fire hoses directed at the water surface near the animal. Used in the Delta and Dawn rescue (2007) as a supplementary deterrent.

(d) Bubble curtains: boat propellers and jet wash create acoustic and physical disturbance. Documented by NOAA as a standard herding tool.

Formation discipline: The Gare Loch operation (2020) demonstrated that cetaceans will dive under and surface behind a herding line if the line is not maintained with sufficient density and coherence. BDMLR reported having to reset the formation multiple times. The lesson is that the formation must be tight enough to prevent the animal from passing between or under the boats, and the crew must be prepared to rapidly reform if the animal evades. A minimum of 10-15 boats is recommended for a single large whale based on the successful Humphrey and Delta/Dawn operations; the 6-boat formation at Gare Loch was insufficient.

3. Shore and aerial observers

Every successful herding operation has used shore-based or aerial observers to maintain visual contact with the animal when it is out of sight of the boat crews. In the Delta and Dawn rescue, four boats with underwater microphones monitored sound propagation. In the Everglades, Coast Guard helicopters provided aerial tracking. Shore observers along the Poel coastline, the Wismar Bight, and subsequent waypoints should be pre-assigned to designated observation points with direct radio communication to the herding flotilla. Volunteer observers from the public can be organized for this role with minimal training: the requirement is visual tracking of the whale's position and blow, and immediate radio relay if the animal changes direction or enters a bay.

4. Positive acoustic lure

The single most effective technique documented in the literature is the use of recorded humpback whale vocalizations played through an underwater speaker from a boat positioned ahead of the animal in the desired direction of travel. This technique was the breakthrough that rescued Humphrey in 1985 after all other methods had failed. It was refined and reapplied in the Delta and Dawn rescue in 2007.

Population-specific recordings: Buckli/Hope/Timmy is very likely a member of the Northeast Atlantic humpback population, with Iceland as the probable feeding ground. We have already identified short samples of feeding and social vocalizations recorded from this population and can prepare a playback compilation on request. Population-specific recordings are preferable to generic humpback sounds because the Delta and Dawn case showed that the mother whale responded to some vocalization types but not others, and acoustic experts noted that relevance of the sounds to the animal's context matters.

Speaker and playback protocol: The Humphrey rescue used a 120-pound J-11 underwater transducer lowered from a private yacht (the "Boot Legger"). The Delta and Dawn rescue used a speaker aboard the 87-foot Coast Guard cutter Pike. The speaker boat is always positioned ahead of the animal, never behind or alongside. The key operational detail from the Humphrey rescue is that the sounds must be played intermittently (on/off cycles) rather than as a continuous loop. When Delta and Dawn rescuers switched from a short playback to a longer

repeating loop, the mother whale reversed direction. Intermittent playback maintains the animal's curiosity and forward movement; continuous playback causes habituation or aversion.

If the rescue team or the Ministry wishes Stranded No More to prepare the acoustic playback compilation from Northeast Atlantic humpback recordings, we can do so on short notice. Please advise.

5. No unattended intervals

The animal cannot be left alone at any point between the refloat and his arrival in safe open water. This is the central lesson of the case history. The reason Buckli/Hope/Timmy is at the Kirchsee at all is that he was displaced from earlier stranding sites without competent guidance. Each time he was moved but not guided, he re-stranded. The Humphrey rescue lost the whale overnight on 3 November 1985 and had to relocate him the next morning. For a juvenile who has already demonstrated an inability to navigate the Baltic coast independently, any unattended interval is an invitation to re-strand.

6. Nighttime operations

This is the most operationally difficult element of the protocol and the one that requires the most serious discussion by the rescue team. The documented cases split on this question: most herding operations are daytime-only (Humphrey, Delta and Dawn, Gare Loch, Everglades). One major exception is the Sri Lanka pilot whale rescue (Panadura, November 2020), in which a 16-hour overnight rescue operation was conducted using vehicle-mounted floodlights and fishing boat lights to maintain visibility, with approximately 120 whales successfully returned to sea.

Stranded No More recommends nighttime operations for this animal if at all feasible, for the following reason: Buckli/Hope/Timmy has spent three weeks demonstrating that he enters enclosed bays and grounds on sandbars when unattended. If the herding operation pauses at nightfall and the animal is left in any semi-enclosed body of water overnight, the probability that he will be found re-stranded in the morning is high. The distance from Poel to the open Skagerrak is approximately 300 nautical miles through complex coastal waters. At a herding speed of 2-4 km/h, that is 6-10 days of continuous herding. If nighttime pauses are unavoidable, the herding team should position the animal in the deepest available open water at the end of each day's herding, maintain at least a skeleton observation team overnight with radar and acoustic monitoring, and be prepared to resume herding at first light.

If nighttime herding is conducted, the Sri Lanka model suggests that floodlighting from boats and from shore (where accessible) is sufficient for visual tracking, and that cetaceans do not appear to be deterred by artificial light from cooperating with the herding effort.

Alternative for night monitoring: Drone with thermal imaging camera as an early warning system.

If continuous night operations with a full flotilla are not feasible, we recommend as a minimum measure the use of a drone with a thermal imaging camera (infrared) that

continuously tracks the animal overnight. The thermal contrast between the whale's blow and the water surface is clearly visible on a thermal camera at night and allows tracking even in complete darkness.

The crucial early warning signal is not that the animal enters a bay — by that time, it is already too late — but that it begins to swim toward a bay or a sandbank. As soon as the drone detects a course change toward a danger zone, the standby team is immediately mobilized to intercept the animal using the herding formation and redirect it before it reaches the bay. Response time is of the utmost importance here.

A drone operator with a thermal imaging camera, a radio channel to the standby team, and at least three fast boats on standby at the dock represent the minimum night deployment.

This configuration carries a residual risk — mobilization time can take 15–30 minutes depending on distance and weather conditions, and the whale can cover considerable distances during that time — but it is significantly better than no night monitoring at all, where a re-stranding would only be discovered at daylight.

7. Herding destination: the open Atlantic

We recommend herding the animal all the way through the Danish Straits and into the open North Atlantic, not stopping in the North Sea. The North Sea has a documented history of juvenile humpback whale strandings, indicating that the navigational challenges that led this animal into the Baltic do not end at the Skagerrak. The animal's probable migratory destination is Iceland via the Norwegian Sea. The herding operation should continue until the animal is in sufficiently deep, open water that re-stranding on a coastline is no longer a proximate risk. The minimum target should be the open Skagerrak west of the Danish coast, with a preferred target of the Norwegian Sea shelf edge if resources permit.

If the animal shows strong, consistent, self-directed swimming behavior toward the open Atlantic at any point during the herding, the flotilla can transition from active herding to passive monitoring and allow the animal to proceed under his own navigation. The decision to release from active herding should be based on the animal's demonstrated behavior, not on a predetermined geographic endpoint.

Summary

Effective herding is not an optional add-on. It is the second half of the rescue. A refloat that is not followed by competent, sustained herding to open water is a displacement, not a rescue. This animal has already been displaced multiple times without guidance and has re-stranded each time. The documented case literature provides a clear, proven toolkit: oikomi pipe-banging as the primary deterrent, a tight boat formation with discipline against evasion, shore and aerial observers for continuous tracking, recorded humpback feeding vocalizations from the Northeast Atlantic population as a positive acoustic lure played intermittently from a speaker boat ahead of the animal, and continuous operations including nighttime herding where feasible. The Humphrey rescue (1985), the Delta and Dawn rescue (2007), and the Everglades operation (2013) each demonstrate that these methods work when applied with sufficient resources, coordination, and persistence. The Gare Loch operation (2020) and the Petaluma Pete failure (1994) demonstrate what happens when resources or coordination are insufficient. The choice is the rescue team's.

References

1. Humphrey the Whale (1985, 1990). Sacramento River / San Francisco Bay, California. Marine Mammal Center, US Coast Guard, US Army 481st Transportation Company. Lead scientists: Dr. Louis Herman, Dr. Diana Reiss, Bernie Krause. Primary source: Krause, B. (1998), *Into a Wild Sanctuary*, Heyday Books. Additional: Wikipedia "Humphrey the Whale"; KALW radio (Nov 2025); ABC7 San Francisco archive.
2. Delta and Dawn (2007). Sacramento River, California. Marine Mammal Center, California Office of Emergency Services, US Coast Guard (cutter Pike). Veterinarian: Dr. Frances Gulland. Source: Wikipedia "Delta and Dawn"; CBS News (31 May 2007); Deseret News / Sacramento Bee (19 May 2007).
3. Short-finned pilot whales, Everglades (2013). Highland Beach, Everglades National Park, Florida. NOAA Fisheries, National Park Service, US Coast Guard. Stranding coordinator: Blair Mase. Source: CNN (5-7 Dec 2013); NPR (5 Dec 2013); National Geographic (5 Dec 2013).
4. Northern bottlenose whales, Gare Loch (2020). River Clyde estuary, Scotland. British Divers Marine Life Rescue (BDMLR), Marine Scotland. Source: BDMLR statement (1 Oct 2020); Sunday Post (2 Oct 2020); CBS News (2 Oct 2020).
5. Short-finned pilot whales, Panadura (2020). Panadura Beach, Sri Lanka. Sri Lanka Navy, Coast Guard, ORRCA, volunteers. Source: Mongabay (5 Nov 2020); Al Jazeera (3-4 Nov 2020).
6. Petaluma Pete (1994). Petaluma River, California. Failed rescue; acoustic lure disrupted by spectator noise from metal barge. Source: Deseret News (19 May 2007), quoting Navy acoustics expert Peter Rovero.

7. Coolongolook River humpback (2026). New South Wales, Australia. Sea World Foundation, NPWS, ORRCA. Refloated ~14-15 April 2026; unconfirmed reports of re-stranding (confirmation pending). Source: Fox Weather (15 Apr 2026).

8. NOAA/NMFS stranding response guidance. Trevor Spradlin, NOAA marine mammal biologist, quoted in National Geographic (5 Dec 2013) on standard herding techniques including pipe-banging, engine noise, recorded sounds, and predator playback.

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Anonymous watchdog group of stranding professionals

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