earthwatch expeditions
by Nat Hab

Explore with Purpose



Tracking Orcas & Their Prey in Iceland

Investigate the Diet & Behavior of This Charismatic Apex Predator

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Trip Details:

Days
8 Days / Jun–Jul

Price
From $9662

Tracking Orcas & Their Prey in Iceland

Investigate the Diet & Behavior of This Charismatic Apex Predator

Orcas—also known as killer whales—typically have specialized diets, often feeding on a single prey species. Some populations rely almost entirely on a particular fish, such as salmon or herring. Others hunt marine mammals. But Iceland's orcas aren't like the rest. Here, some chow on herring, while others switch between fish and marine mammals, feeding across multiple levels of the food chain. Since 2008, scientists have been working to understand why—and what these dietary patterns mean for the whales' health, reproduction and survival over time. Join one of the first long-term studies of killer whale diets as you track these apex predators. From cliffside lookouts and small research vessels, document where orcas go, how they hunt, what they eat, and how those choices affect their health and survival. Against Iceland's rugged coastal landscapes, get a front-row view on how a top predator adapts.

Expedition Highlights

Join a First-of-Its-Kind Orca Study

Help scientists learn more about what Iceland's killer whales eat—and what that means for their health, reproduction and future

Get Close to Orcas During Research at Sea

From small boats, you'll be mere feet from wild killer whales as they surface, feed and move through frigid island-studded waters

Explore Iceland's Wild Southern Coast

Follow a rugged shoreline where seabird cliffs rise above open ocean, and look for puffins and whales at home in the exposed North Atlantic

Research at a Glance



The Research Focus

Study what Iceland’s killer whales eat and how and where they move, examining how changing prey affects feeding, health and survival.



What You'll Do

Scan the sea for whales from coastal lookouts, head out by boat to observe behavior and feeding, and record sightings and activity.



Why It Matters

Understanding orca diets helps predict how they respond to changing prey and informs conservation efforts for the ecosystems they depend on.



Tracking Orcas & Their Prey in Iceland Itinerary

Investigate the Diet & Behavior of This Charismatic Apex Predator

Itinerary at a Glance

Day 1	Reykjavik
Day 2	South Coast
Day 3	Thorsmork Nature Reserve
Day 4	Vestmannaeyjar
Days 5–7	Heimaey
Day 8	Heimaey / Reykjavik



Day 1

Reykjavik

Arrive in Reykjavik, Iceland's capital on the North Atlantic

- Explore Iceland's compact, walkable capital
- Learn how glacial runoff supports coastal fish populations and the killer whales that follow them

Arrive in Iceland's capital of Reykjavik, where you are met and transferred to your accommodations. If time allows, explore this dynamic, highly walkable small city that is the commercial hub of this small island nation forged by fire and ice, with glaciers and volcanoes carving and building its unstable, shifting landscape. Rivers fed by glacial melt and nutrient-rich runoff feed coastal waters, determining where fish gather—and where killer whales follow. This relationship between land and sea is integral in the research to come.

Day 2

South Coast

Horseback ride beneath Eyjafjallajokull and walk Iceland's glacial coast

- Cross open fields on a sure-footed Icelandic horse
- Visit family-run Skalakot Farm to learn the breed's Norse history and distinctive gaits
- Walk among glaciers, waterfalls, lava fields and black sand beaches

Icelandic horses are compact, sure-footed and built for navigating rough ground. Brought to this harsh climate by Norse settlers more than 1,000 years ago, they've become both a symbol of Icelandic identity and a practical working animal still used on farms today. Learn about their unique stature, distinctive gaits and Iceland's strict breeding laws designed to protect them on a morning visit to Skalakot Farm, a family-run operation located beneath the Eyjafjallajokull volcano. Set out on a private guided ride across open fields at the volcano's base. The volcanic terrain is uneven and exposed, but these horses navigate it with ease. Many move in the *tolt,* a smooth gait unique to Icelandic horses that allows for a steady, gliding ride even over rough ground.

Afterward, we explore the South Coast in more detail. This stretch of Iceland is marked by contrasting geological features—glaciers winding down from the interior icefields, spawning rivers that flow to the sea, black sand beaches formed by volcanic eruptions, and waterfalls, fed by ice caps, that drop from sheer cliffs. Protected areas preserve these active systems where ice, flowing water and volcanic activity continually reshape the land. On a guided walk through this landscape, we move among river-cut valleys, moss-covered lava and open panoramas of the coastline. Glacial runoff carries sediment to the sea, feeding coastal waters that support dense fish populations and, in turn, the predators you'll study later in the trip.

Day 3

Thorsmork Nature Reserve

Cross braided rivers into a Highland valley between three glaciers

- Travel by high-clearance 4x4 through shifting waterways
- Walk beneath steep ridgelines rising over broad gravel plains
- Explore one of southern Iceland's last remaining birch woodlands

Travel inland to the dramatic Thorsmork region, a protected valley set between three glaciers, including Eyjafjallajokull and Myrdalsjokull. To reach it, we travel in modified high-clearance 4x4 vehicles built for navigating rugged Highland terrain, crossing braided glacial rivers whose courses are constantly shifting with meltwater runoff. Once inside the valley, the imposing scale of our environs is on display on a guided walk through this magnificent landscape. River channels braid across wide gravel plains, carrying sediment from the ice caps above, while steep ridgelines rise above the valley floor. Explore one of the few remaining birch woodlands in southern Iceland, a rare pocket of green held within the otherwise raw and exposed Highland environment, where the elements have stripped the landscape to dark rock and ash.

Day 4

Vestmannaeyjar

Reach the volcanic Westman Islands and begin your killer whale research

- Cross by ferry to Heimaey, the archipelago's largest and only inhabited island
- See sea cliffs crowded with nesting seabirds, including one of Iceland's largest puffin colonies
- Meet the research team and learn how scientists identify and track individual killer whales

This morning we head to the ferry terminal at Landeyjahofn to cross to Vestmannaeyjar, or the Westman Islands—named for the Irish slaves, or "West Men," who were brought here from the British Isles by Norse settlers in the 9th century. This volcanic archipelago, which rises abruptly out of the North Atlantic, is known for its large seabird colonies and productive coastal waters. Heimaey, the largest of the 15 islands and the only inhabited town, will be our base.

As the islands come into view, steep sea cliffs rise from the water, packed with nesting seabirds, including one of Iceland's largest puffin colonies. Offshore, nutrient-rich waters hold dense schools of fish, including herring, drawing whales and other predators into concentrated feeding areas. On arrival, meet the research team at the harbor and transfer to our accommodations nearby, as we eagerly anticipate the research fieldwork that lies ahead. This evening, the team's Lead Scientist introduces the research program, the methods we'll use, and what to expect in the days ahead. We'll learn how scientists identify individual killer whales by their dorsal fins, tracking their movements across seasons, and we'll get an orientation to the work we'll be doing as we study their changing feeding behavior.

Days 5–7

Heimaey

Track killer whales and document their changing feeding behavior

- Scan from coastal lookouts and research boats for orcas hunting beneath feeding seabirds
- Photograph dorsal fins and record whale movements, group behavior and underwater communication
- Walk the 1973 Eldfell lava fields and visit the Beluga Whale Sanctuary

The next few days center on fieldwork in the waters around Vestmannaeyjar—the Westman Islands—where our work unfolds according to weather and whale activity. We split into **two research teams: land-based and water-based**. The land-based team helps those on the water find orcas—teams are in constant communication.

Killer Whale Research on Land and Water

From coastal lookouts or small research vessels, scan for activity on the water's surface—birds tightening into feeding flocks, fish breaking the water, or the brief arc of a dorsal fin. Once we locate whales, it's time to head out by boat to observe them at close range. Watch how they feed, noting changes in direction, group coordination and pauses as they hunt below the surface. Record what they do, how they assemble in groups, and where they are moving. When sea conditions limit boat work, continue surveys from elevated land stations, tracking whale movement along the coastline and recording sightings, direction of travel, and behavior.

Photograph dorsal fins to identify individuals and contribute to a long-term catalog tracking of orcas over seasons and years. Collect acoustic recordings to document their presence and communication below the surface. When conditions allow, observe or assist with drone surveys and biological sampling used to assess diet, body condition and long-term health.

Island & Ecosystem Exploration

Beyond whale surveys, we explore the island to gain a deeper understanding of the ecosystem from another angle. Heimaey's cliffs host one of Iceland's largest Atlantic puffin colonies, where thousands of the whimsical birds shuttle between sea and shore with beaks full of small fish. Their catch—size, species and frequency—offers a clear glimpse of what's available in the surrounding waters, making seabirds a visible link to life below the surface. Walk across lava fields formed during the cataclysmic 1973 eruption of Eldfell volcano, where molten rock advanced toward the harbor and reshaped the island in a matter of days. We also visit the Beluga Whale Sanctuary, an open-water reserve for rescued belugas established by the Sea Life Trust, and learn how they are cared for in a natural setting.

Day 8

Heimaey / Reykjavik

Depart Reykjavik with a firsthand understanding of killer whales

- Return by ferry from Heimaey to the Icelandic mainland for homeward flights

Return by ferry to the mainland today, reflecting on all you have accomplished, and with a clearer understanding of the importance of killer whale research in the quest to protect the species' future in a changing North Atlantic. Our Iceland expedition comes to a close as we transfer to Keflavik Airport for departing flights.



Tracking Orcas & Their Prey in Iceland Accommodations

Investigate the Diet & Behavior of This Charismatic Apex Predator



Hotel Reykjavik Saga

This elegant new 4-star hotel in the heart of Reykjavik features sleek contemporary design elements and is just steps from all the city center attractions.



Hotel Vestmannaeyjar

A highlight of any visit to the Westman Islands, the hotel offers comfortable accommodations and sophisticated dining in a rarely visited part of Iceland famous for the world's largest Atlantic puffin colony.



Landhotel

Surrounded by rolling hills and with views of the distant volcanoes Hekla and Eyjafjallajökull, the Landhotel's modern exterior incorporates banks of windows and glass doors for a seamless indoor/outdoor transition.



Alda Hotel Reykjavik

This contemporary boutique hotel in central Reykjavik offers Nordic-style rooms with rain showers, a hot tub and sauna, an in-house barbershop and a lively ground-floor restaurant and bar.



Hotel Reykjavík Centrum

Set on Reykjavik's oldest street, this historic hotel features spare, contemporary design, an atrium, guest rooms with blackout curtains and an extensive commitment to sustainability.

For detailed descriptions, visit nathab.com/earthwatch-expeditions/iceland-orca-research-conservation-travel/accommodations.

Meet the Scientists

Tracking Orcas & Their Prey in Iceland



Filipa Samarra, Ph.D.

Lead Investigator, Icelandic Orca Project

Dr. Filipa Samarra is a marine biologist and lead investigator for the Icelandic Orca Project, where she studies the behavior and ecology of killer whales, or orcas, in the North Atlantic. She is also a Director at the University of Iceland Research Center in Vestmannaeyjar and holds a Ph.D. in Biology from the University of St Andrews. Her research focuses on how killer whales adapt their feeding strategies, communication and social structure to different environments. By studying how individuals interact and respond to changing prey and conditions, she examines how these top predators shape—and are shaped by—the ecosystems they inhabit.

Because killer whales are highly mobile and wide-ranging, her work relies on long-term monitoring and collaboration beyond traditional fieldwork. Dr. Samarra's methods combine behavioral observation with bioacoustics, using recordings of whale vocalizations—often described as a complex, ever-changing “chatter”—alongside photo identification to understand communication, movement and group dynamics. Earthwatch participants play a central role, using photographs and observations on the water to help track where whales travel and how populations connect across regions. These contributions expand the reach of research and provide critical data that would otherwise be impossible to collect. During one field season, her team identified an adult male orca that had not been recorded in the population for more than 20 years—an encounter that underscored how much remains unknown about these wide-ranging animals and the importance of long-term monitoring. Through this work, Dr. Samarra is helping to build a more complete picture of killer whale populations, showing how long-term collaborative research is essential to understanding and protecting marine ecosystems.

Education

Ph.D. in Biology, University of St. Andrews (UK)
M.Res. in Environmental Biology, University of St. Andrews (UK)
B.S. in Biology, University of the Azores, Portugal

Research & Impact

Tracking Orcas & Their Prey in Iceland

You're contributing to the first long-term research program dedicated to understanding killer whale diet and behavior in Iceland. This work examines how prey shifts—driven by warming waters and changing ocean conditions—affect how these whales feed, move and survive, and what that means for their future in the North Atlantic.

Research Focus

In the waters around Vestmannaeyjar—the Westman Islands off the south coast of Iceland—scientists study how killer whales use a known herring spawning ground and how different groups feed, interact and move through the area. Some whales closely track herring migrations, while others switch between herring and other prey, suggesting more flexible feeding strategies. This is unusual among killer whales, which typically specialize in a single prey type. Understanding how common each approach is—and how it affects health and survival—is central to the research. By combining land-based observations, boat surveys, acoustic monitoring, drone measurements and biological sampling, the team builds a clearer picture of how these whales live and how they may respond to change.

Conservation Impact

Key aspects of killer whale ecology in Iceland—including what they eat and how they survive—remain poorly understood. This research is helping close that gap and inform how these whales and their habitat are managed and protected.

- **The first long-term dataset** on killer whale diet, behavior and ecology in Iceland
- **Rare insight** into how climate-driven shifts in prey affect a top marine predator
- **Evidence of different feeding strategies** among whales within the same population, reshaping understanding of their adaptability
- **Documentation of cetacean biodiversity in South Iceland**, confirming this region as an important and previously understudied feeding area
- **Data that links prey availability to whale health**, movement and resilience to environmental change
- **Findings that inform ecosystem-based management** and future conservation decisions in a rapidly changing North Atlantic

This work continues year after year, with each observation contributing to a clearer understanding of how killer whales survive, and what it will take to protect them.

Your Role in the Research

Scan for whales from coastal lookouts and at sea, recording sightings, movement and behavior. Contribute to photo-identification by matching dorsal fins to known individuals and help process acoustic recordings when conditions limit fieldwork. Each observation adds to a growing dataset used to understand how killer whales use this habitat and how they respond to changing prey and ocean conditions.

Life in the Field

Days are shaped by changing weather and whale activity. When conditions allow, we scan the sea from cliffs or track orcas in the water from small research vessels. When seas are rough or visibility drops, our focus shifts onshore to processing data, reviewing images and learning how the research comes together to create broader insights. Some days bring multiple whale encounters while others are quieter in terms of sighting, reflecting the unpredictable nature of fieldwork in this exposed North Atlantic environment.

Field Conditions

Fieldwork takes place along Iceland's South Coast and in the waters around Vestmannaeyjar (the Westman Islands), accessed by foot and small boat. Expect extended time outdoors in cool, windy and changeable conditions, with temperatures typically between 40–50°F. Terrain may include uneven coastal paths and short uphill walks to observation points. Boat work depends on sea conditions and may involve cold, wind and occasional rough water. Plans shift with weather and visibility; flexibility is an inherent part of the experience.

Discovery in the Field

Tracking Orcas & Their Prey in Iceland

1. **Join a First-of-Its-Kind Orca Study**
   Take part in one of the first long-term efforts to understand what Iceland's killer whales eat and how shifting prey affects their health, reproduction and survival.

2. **See a Rare Feeding Strategy Up Close**
   Observe killer whales that switch their diet between fish and marine mammals—an uncommon behavior that may reveal how they adapt to changing ocean conditions.

3. **Understand the People & Ideas Behind the Research**
   Spend time with the scientists leading Iceland's killer whale study and learn how their research deepens our understanding of shifting prey, changing ocean conditions and the long-term survival outlook for the species.

4. **Encounter Abundant Native Wildlife**
   Follow whales, dolphins and seabirds that use the same feeding grounds as the orcas, revealing how predators overlap, compete and respond to changes in prey.

5. **Discover Vestmannaeyjar's Volcanic Islands**
   Journey to a remote archipelago formed by eruptions and shaped by the sea's erosive force—a dramatic landscape of lava fields and steep cliffs.

6. **Watch Puffins Up Close**
   Observe thousands of Atlantic puffins nesting on sea cliffs, returning from the ocean with beaks full of small fish, abundant in the waters just offshore.

7. **Learn From an Expert Expedition Leader**
   Your naturalist Expedition Leader ensures that each day runs smoothly, coordinating logistics and providing natural history insight that connects your understanding of Iceland's landscapes, wildlife and the research project at hand.

8. **Travel in the Personalized Context of a Small Group**
   Because we intentionally limit our group size, each participant is assured quality time in the field, meaningful interaction with the research team, and an active role in daily research activities.

9. **Explore with Purpose**
   Take part in fieldwork that supports ongoing marine research, contributing to the understanding and protection of killer whales and the ecosystems they depend on.



Dates & Pricing Summary:

Price
From $9662

Group Size
Limited to 12 Travelers

Tracking Orcas & Their Prey in Iceland Dates, Pricing & Info

Investigate the Diet & Behavior of This Charismatic Apex Predator

2027 Departures

Departure – Return	Pricing	Notes
Jun 11 - Jun 18, 2027	**$9662**	
Jun 24 - Jul 1, 2027	**$9662**	
Jun 29 - Jul 6, 2027	**$9662**	Natural Habitat Explorers Pricing Available
Jul 3 - Jul 10, 2027	**$9662**	
Jul 8 - Jul 15, 2027	**$9662**	
Jul 12 - Jul 19, 2027	**$9662**	
Jul 17 - Jul 24, 2027	**$9662**	

Ready to Book? Call an Adventure Specialist at 800-548-7555

2028 Departures

Departure – Return	Pricing	Notes
Prices and dates not confirmed for 2028		
Jun 9 - Jun 16, 2028	**From $9662**	
Jun 22 - Jun 29, 2028	**From $9662**	
Jun 27 - Jul 4, 2028	**From $9662**	
Jul 1 - Jul 8, 2028	**From $9662**	
Jul 6 - Jul 13, 2028	**From $9662**	
Jul 10 - Jul 17, 2028	**From $9662**	
Jul 15 - Jul 22, 2028	**From $9662**	

See https://www.nathab.com/earthwatch-expeditions/iceland-orca-research-conservation-travel/dates-fees for the latest pricing details.

Included

Trip price includes: All accommodations, services of Nat Hab's professional Expedition Leader(s), local guides and research staff, all meals from dinner on Day 1 through breakfast on the final day, select alcoholic beverages, some gratuities, airport transfers on Day 1 and the final day, all activities and entrance fees, plus all taxes, permits and service fees.

Not Included

Travel to and from Iceland, alcoholic beverages not specified above, some gratuities, passport and visa fees (if applicable), optional activities, personal items (laundry, phone calls, etc.), airline baggage fees, airport and departure taxes (if applicable), required medical evacuation insurance and optional travel protection insurance.

Mandatory Insurance

Because this expedition operates in remote field locations, all guests are required to carry medical evacuation insurance with a minimum of $250,000 in coverage.

We also strongly recommend comprehensive travel insurance to protect against unexpected disruptions such as cancellations, delays or lost baggage. Please contact our office for details on available coverage options.

Getting There & Getting Home

This trip begins and ends in Reykjavik, Iceland. Arrive in Reykjavik on Day 1 via Keflavik International Airport (KEF), approximately one hour from the city.

On the final day, return from Vestmannaeyjar by ferry and ground transfer. Please schedule departing flights from KEF for later in the day to allow adequate travel time.



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