FIELD GUIDE TO THE SEABIRDS AND MAMMALS OF THE BARENTS SEA

Lech Stempniewicz & Jan Marcin Węsławski

C.C.

FIELD GUIDE TO THE SEABIRDS AND MAMMALS OF THE BARENTS SEA

Lech Stempniewicz & Jan Marcin Węsławski illustrations: Stanisław Węsławski

> Publication financed by the BIODIVERSA – ACCES and NRC funded ARK projects at IO PAN

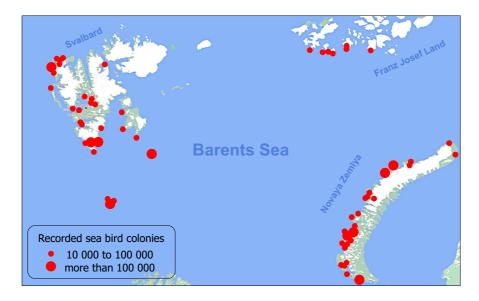
> > ISBN: 978-83-949491-6-7

Institute of Oceanology Polish Academy of Sciences Sopot 2022

Introduction

We have prepared this large format guide for use on yachts, ships and other kinds of infrastructure to give the growing number of people visiting the Arctic an opportunity to identify the animals they see. More and more scientists are coming here. The Stanisław Siedlecki Polish Polar Station on Spitsbergen is in continuous operation all the year round, and a number of university stations are seasonally operative (in summer). In addition, a growing number of tourists are coming to see the unique beauty of the Arctic before it disappears. Nowhere else is climate change so apparent, with glaciers receding hundreds of metres every year, disappearing ice fields at sea, etc. As a result of global warming, the Arctic regions are becoming easier to navigate and minerals easier to extract, so that the working of previously difficult resources is beginning to pay off. Therefore, we felt there was a need for a quidebook to help identify the birds and mammals most commonly encountered by visitors to the Arctic. The uniqueness and abundance of the Arctic fauna surprises everyone. Although there are not many species, the population sizes of the key ones are striking. The extreme seasonality of Arctic fauna is a reflection of the specific environmental conditions in which it lives, mainly the alternation of the polar day and night. Only the few species that cannot swim or fly away remain for the long, dark winter. These are mainly terrestrial mammals (polar bear, reindeer, Arctic fox), several endemic marine mammals (narwhal, beluga whale, bowhead, pinnipeds) and some species of birds, e.g. the Ivory Gull and Svalbard Rock Ptarmigan. All other species arrive here in spring to breed (birds) or only use the abundance of sea food to feed around the clock during the polar day. When autumn comes, they migrate south.

Lech Stempniewicz, Jan Marcin Węsławski



Sea bird colonies in the Barents Sea region after: https://www.grida.no/resources/7482

[•] This guide is not intended for professionals, who can choose one of the many more advanced specialist guidebooks when going to Spitsbergen. Even so, amateurs using it can provide valuable information about the occurrence, aggregations and distribution of species.

[•] When observing animals in a more organized way, from a sailing yacht or ship, the general scheme described by Tasker et al. (1984) is recommended, with an observer working on one side of the vessel, counting animals in the water for 10 minutes every hour, in sectors at distances of 50, 100, 200, 300+ metres from the vessel, and separate snapshot counts for flying birds. For the data to be useful, information about on the geographic position, date, hour and vessel speed is essential.

References

Ashmole NP. 1971. Seabird ecology and the marine environment. In: Avian Biology, Vol. I. (DS Farner, JK King, KC Parkes. eds.). Academic Press, New York, pp. 224-286.

Brown RGB. 1980. Seabirds as marine animals. In: Behavior of Marine Animals (J. Burger. BL. Olla and HE. Winn, eds.). Plenum Press, New York, pp. I-39.

Cairns DK. 1987. Seabirds as indicators of marine food supplies. Biol. Oceanography 5: 261-271.

Camphuysen KD. 1993. Birds and marine mammals in Svalbard, 1985-91. Sula 7, 3-44.

Croxall JP. 1987. Seabird feeding ecology and role in marine ecosystems. Cambridge Univ. Press, Cambridge.

Fijn R, Poot M, Beuker D, Bouma S, Collier M, Dirksen S, Krijgsveld K, Lensink R. 2012. Using standardised counting methods for seabirds to monitor marine mammals in the Dutch North Sea from fixed platforms. Lutra 55 (2): 77-87.

Folkens PA, Reeves RR. 2008. Guide to marine mammals of the world. National Audubon Society, New York.

Fumess RW, Monaghan P. 1987. Seabird Ecology. Tertiary Level Biology. Blackie, Glasgow.

Isachsen K, Bakken V. 1995. Seabird populations in the Northem Barents Sea. Meddelelser om Norsk Polarinstitutt 135, 134 pp.

Klekowski RZ, Węsławski JM. (eds) 1990. Atlas of the marine fauna of Southern Spitsbergen. Vol. l Vertebrates. Ossolineum, 284 pp.

Kovacs KM, Lydersen Ch. 2006. Birds and mammals of Svalbard. Norsk Polarinstitutt, 203 pp.

Mehlum F. 1990. Seabird distribution in the northern Barents Sea marginal ice-zone during late summer. Polar Res. 8: 61-65.

Piatt JF, Sydeman WJ, Wiese F. 2007. Introduction: a modern role for seabirds as indicators. Marine Ecology Progress Series, 352, 199–204.

Stempniewicz L, Węsławski JM. 1992. Outline of trophic relationships in Homsund fjord, SW Spitsbergen (with special consideration of seabirds). in: Opalinski KW. & Klekowski RZ. (eds), Landscape, Life world and Man in High Arctic. Warszawa, IE PAN, 271-298.

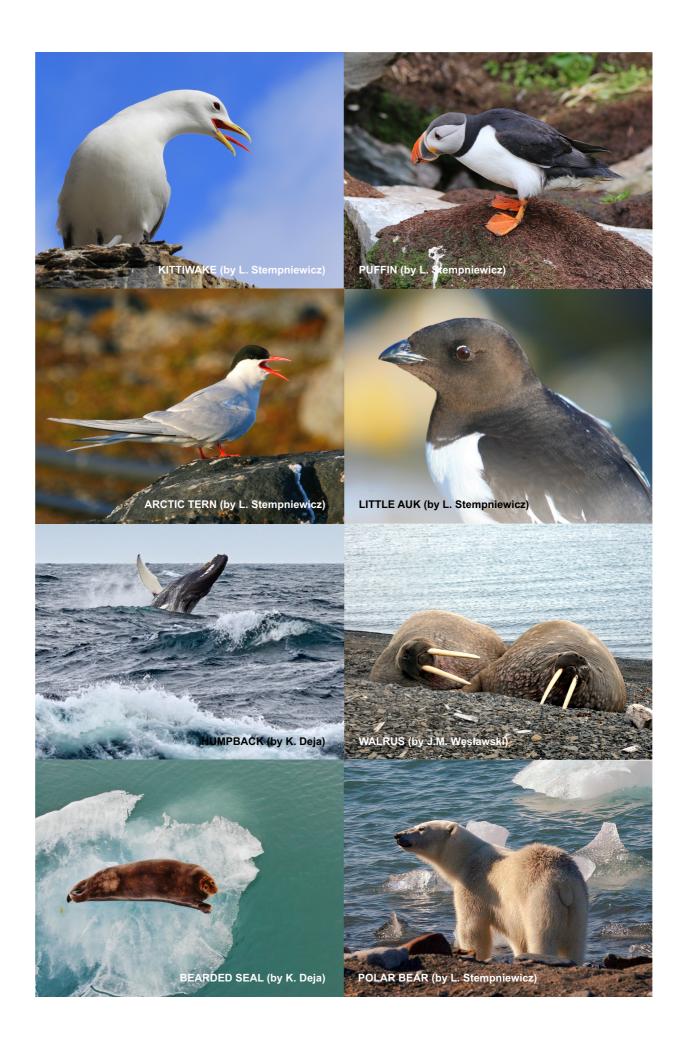
Stempniewicz L, Goc M, Kidawa D, Urbański J, Hadwiczak M, Zwolicki A. 2017. Marine birds and mammals foraging in the rapidly deglaciating Arctic fjord - numbers, distribution and habitat preferences. Clim. Change 140, 533–548.

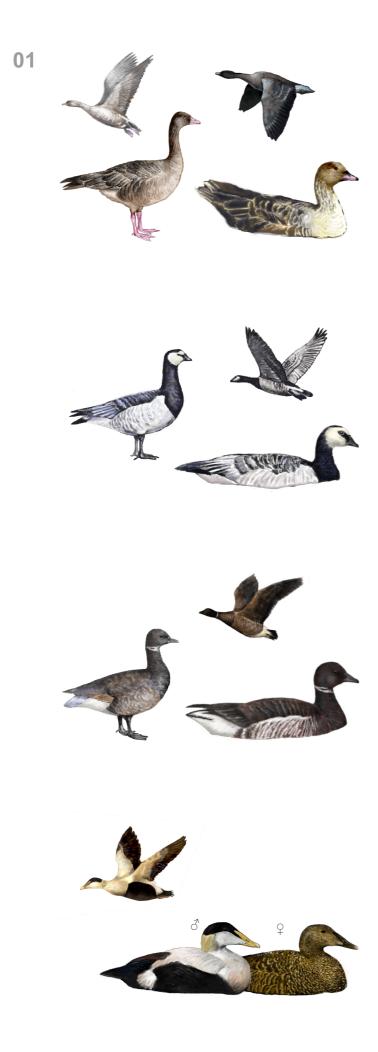
Stempniewicz L, Goc M, Głuchowska M, Kidawa D, Węsławski JM. 2021. Abundance, habitat use and food consumption of seabirds in the high-Arctic ford ecosystem. Polar Biology 44:739–750.

Still R, Harrop H, Stenton T, Dias L. 2019. Europe's sea mammals including the Azores, Madeira, the Canary Islands and Cape Verde: A field guide to the whales, dolphins, porpoises and seals. WILDGuides of Britain & Europe, Princeton University Press.

Tasker ML, Jones PH, Dixon T, Blake BF. 1984. Counting seabirds at sea from ships: a review of methods employed and suggestion for standardized approach. The Auk 101: 567-577.

Urbański JA, Stempniewicz L, Węsławski JM, Dragańska-Deja K, Wochna A, Goc M, Iliszko L. 2017. Subglacial discharges create fluctuating foraging hotspots for sea birds in tidewater glacier bays. Sci. Rep., 7, 43999, https://doi.org/10.1038/srep43999.





Anser brachyrhynchus **Pink-footed Goose, Kortnebbgås, Gęś krótkodzioba.** L: 60-75 cm, S: 135-170 cm, W: 1.8-3.4 kg. Nesting: singly on small rocks protruding from flat tundra and mountain slopes. Flightless for several weeks during chick rearing due to simultaneous moulting of wing feathers. Eggs: (3-5) whitish (78x52 mm). Food: tundra plants.

Branta leucopsis Bernacle Goose, Hvitkinngås, Bernikla białolica.

L: 58-70 cm, S: 132-145 cm, W: 1.2-2.2 kg.

Nesting: the most numerous goose on Svalbard, nests in large aggregations on flat coastal islands, and also dispersed on land, always near water. Flightless for several weeks during chick rearing due to simulta-neous moulting of wing feathers. Eggs: (3-6) white (77x50 mm).

Food: terrestrial plants and marine algae.

Branta bernicla

Brent Goose, Ringgås, Bernikla obrożna.

L: 56-61 cm, S: 112-120 cm, W: 0.9-2.2 kg.

Nesting: uncommon, nests on flat inshore islets near water. Flightless for several weeks during chick rearing due to simultaneous moulting of wing feathers.

Eggs: (3-6) white-cream (71x47 mm). Food: terrestrial plants and marine algae.

Somateria mollissima Eider, Ærfugl, Edredon zwyczajny. L: 50-71 cm, S: 80-108 cm, W: 0.8-3.0 kg.

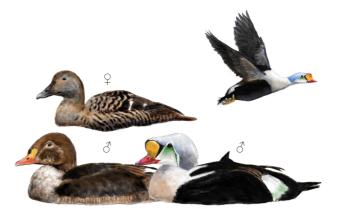
Nesting: fairly numerous, nests in aggregations on inshore islets and coastal rocks, also scattered on land, close to water, often in tern colonies. The nest is lined with eiderdown, plucked from the female's breast, which has long been harvested for filling pillows, quilts, sleeping bags and down jackets. Highly social, females exhibit crèching behaviour, consisting on sharing the care on rearing ducklings.

Eggs: (3-5) greenish-grey or olive green (77x52 mm).

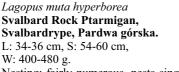
Food: marine benthic molluscs, crustaceans, echinoderms and annelids. During chick rearing feeds primarily on small invertebrates plucked from the surface of the water. Somateria spectabilis King Eider, Praktærfugl, Turkan. L: 47-63 cm, S: 86-102 cm, W: 0.9-2.2 kg.

Nesting: uncommon, nests on inshore islets on flat tundra, always close to freshwater ponds.

Eggs: (3-6) light-olivaceous (67x45 mm). Food: marine benthic molluscs, echinoderms and crustaceans. During breeding feeds primarily on small invertebrates plucked from the surface of the water.



Clangula hyemalis Long-tailed Duck, Havelle, Lodówka. L: 40-47 cm, S: 73-79 cm, W: 0.5-1.1 kg. Nesting: nests singly, often on coastal skerries, willingly in terns colonies. Eggs: (4-8) olivaceous-brown (54-38 mm). Food: molluscs, dipteran larvae, crustaceans, small fish.



Nesting: fairly numerous, nests singly, usually in high valleys and on mountain slopes.

Eggs: (5-9) cinnamon-red, spotted brown (44x32 mm).

Food: primarily tundra plants such as dwarf willows. It also eats various seeds, leaves, flowers and berries. The chicks eat insects.

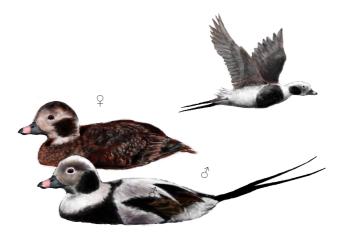
Gavia stellata Red-throated Diver, Smålom, Nur rdzawoszyi.

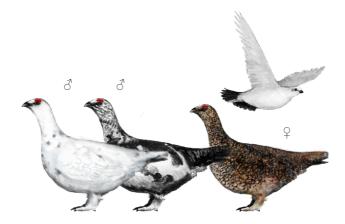
L: 53-69 cm, S: 106-116 cm, W: 1.0-2.7 kg.

Nesting: uncommon, nests singly on open flat areas with ponds, often on inshore islets, always in the immediate vicinity of water.

Eggs: (1-3) (dark olivaceous with dark spots (75×46 mm).

Food: primarily fish, occasionally molluscs, crustaceans and other aquatic invertebrates, insects, fish roe or even freshwater algae.

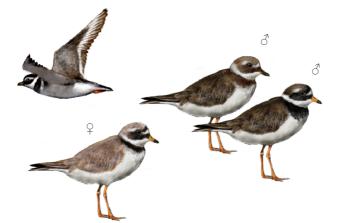


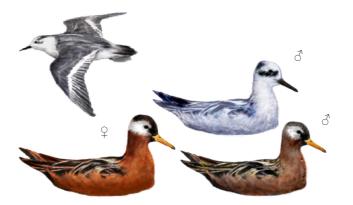












Fulmarus glacialis **Fulmar, Havhest, Fulmar.** L: 45-50 cm, S: 102-112 cm,

W: 450-1000 g.

Nesting: numerous, nests colonially on rocky cliffs. They produce a stomach oil rich in energy, which is food for chicks and adults during long flights. It is also sprayed out of their mouths as a defence against predators from a very early age. Egg: (1) white (74x48 mm).

Food: feeds on shrimps, fish, squid, jellyfish and other marine invertebrates, as well as carrion and marine offal. It often forages far from the colony, even several hundred kilometers.

Morus bassanus **Northern Gannet, Havsule, Głuptak zwyczajny.**

L: 87-100 cm, S: 165-180 cm, W: 2.3-3.6 kg. Nesting: nests colonially on offshore

islands with cliffs, from which birds can easily launch into the air. The breeding range to the north is increasing. Egg: (1) pale blue (79x50 mm). Food: mainly fish 2.5–30.5 cm in length that shoal near the surface. Forages by diving at high speed into the sea.

Charadrius hiaticula Common Ringed Plover, Sandlo, Sieweczka obrożna. L: 18-20 cm, S: 48-57 cm, W: 40-80 g. Nesting: nests sporadically on sandy areas, close to the seashore. Eggs: (most often 4) grey-yellow, spotted with brown (36x24 mm). Food: insects, crustaceans and worms.

Phalaropus fulicarius Grey Phalarope, Polarsvømmesnipe, Płatkonóg płaskodzioby. L: 20-22 cm, S: 40-44 cm, W: 35-70 g. Nesting: uncommon, nests singly or in

small, loose aggregations, near ponds and lakes, often in tern colonies.

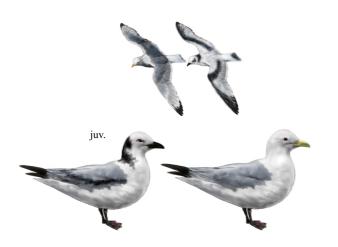
Eggs: (4) olivaceous, darkly spotted (30x22 mm).

Food: small insects including dipteran larvae, crustaceans and fine molluscs. During feeding, it often swims in quick circles, creating small vortices that bring prey to the surface.









Stercorarius skua Great Skua, Storjo, Skua (wydrzyk olbrzymi). L: 53-58 cm, S: 132-140 cm,

W: 1.1-1.7 kg.

Nesting: uncommon (except on Bear Island), nests singly or in loose colonies on flat coastal tundra.

Eggs: (1-2) light-brown, olivaceous or grey, spotted dark-brown (71-50 mm).

Food: fish, eggs and chicks of different bird species. Food pilfered from glaucous gulls. Also attacks adult gulls, auks and even gannets, usually at sea.

Larus hyperboreus

Glaucous Gull, Polarmåke, Mewa blada.

L: 62-68 cm, S: 150-165 cm, W: 0.96-2.7 kg.

Nesting: numerous, nests singly (e.g. on inshore rock) or colonially (on mountains slopes), most often in the vicinity of large breeding aggregations of geese, eiders and seabirds.

Eggs: (2-3) greenish or brownish dotted with dark spots (77x54 mm).

Food: fish and big crustaceans, carrion and offal, eggs and chicks of different bird species and adult little auks.

Larus marinus Great black-backed Gull, Svartback, Mewa siodlata.

L: 64-78 cm, S: 150-165 cm, W: 0.75–2.3 kg.

Nesting: nests sporadically on inshore rocks.

Eggs: (1-3) olivaceous, with dark spots (77x54 mm).

Food: marine fish, and invertebrates, carrion and offal, eggs and chicks of different bird species.

Rissa tridactyla Black-legged Kittiwake, Krykkje, Mewa trójpalczasta. L: 38-40 cm, S: 95-120 cm,

W: 305-525 g.

Nesting: numerous, nests colonially on rocky cliffs, often together with guillemots.

Eggs: (1-3) white, brownish to turquoise with dark brown speckles (57x41 mm). Food: marine crustaceans, fish and polychaetes. Forages on the shelf and in glacier bays.

Calidris maritima **Purple Sandpiper, Fjæreplytt, Biegus morski.** L: 20-22 cm, S: 42-46 cm, W: 50–105 g. Nesting: fairly numerous, nests singly on flat tundra and on gentle mountain slopes. Eggs (4) olivaceous, spotted brown 37x26 mm. Food: terrestrial, freshwater and marine invertebrates, terrestrial plants and algae.



Ç

Arenaria interpres **Ruddy Turnstone, Steinvender, Kamusznik.** L: 22-24 cm, S: 50-57 cm, W: 80-190 g. Nesting: nests sporadically on stony tundra, close to the seashore. Eggs (4) olivaceous-grey, spotted dark brown 41x29 mm. Food: insects, polychaetes, crustaceans.

Stercorarius pomarinus **Pomarine Skua, Polarjo, Wydrzyk tęposterny (wydrzyk żółtoszyi).** L: 46-51 cm, S: 125-138 cm, W: 540-920 g. Nesting: nests sporadically on flat tundra. Eggs: (2) brown or olivaceus, with dark spots (64x45 mm). Food: marine fish and invertebrates taken from gulls and auks, also eggs and chicks of different bird species.

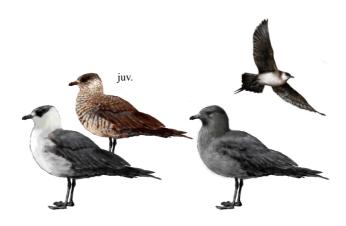


Stercorarius parasiticus Parasitic Jaeger (Arctic Skua), Tyvjo, Wydrzyk ostrosterny (pasożytny). L: 41-46 cm, S: 110-126 cm, W: 295–318 g.

Nesting: fairly numerous, nests singly on flat tundra, often on small hillocks, usually in the vicinity of large seabird colonies. Actively defends the nest, carrying out furious aerial attacks on approaching intruders, including polar bears and humans.

Eggs: (1-2) olivaceous, brown or greenish with spots (57x40 mm).

Food: marine fish and crustaceans stolen mainly from kittiwakes and black guillemots, also eggs and chicks of different bird species.



Pagophila eburnea Ivory Gull, Ismåke, Mewa modrodzioba. L: 40-43 cm, S: 108-120 cm,

W: 448-687 g. Nesting: uncommon, nests in small colonies on steep rocky walls, often far from the seashore. Resident on Svalbard all the year round.

Eggs: (1-2) olivaceous-brown, with spots (60x43 mm).

Food: in summer, marine fish and invertebrates, often in glacier bays; in winter, carrion and offal, also the remains of polar bear prey and excrement.

Sterna paradisea Arcic Tern, Rødnebbterne, Rybitwa popielata.

L: 33-35 cm, S: 75-85 cm,

W: 86-127 g.

Nesting: fairly numerous, nests colonially on flat tundra and inshore islets, close to the seashore. Actively defends the nest, carrying out furious aerial attacks on approaching intruders, including polar bears and humans.

Eggs: (1-3) olivaceous, with dark spots (41x30 mm).

Food: small fish and marine invertebrates.

Uria lomvia Brunnich's Guillemot, Polarlomvi,

Nurzyk polarny. L: 39-43 cm, S: 65-73 cm,

W: 0.7-1.5 kg.

Nesting: numerous, nests colonially on rocky cliffs, usually together with Kittiwakes. Chicks spend 18-25 days on the cliffs before leaving for the sea with still undeveloped wings. They jump off the rocky shelf and glide towards the water accompanied by the father. At sea, they stay together for c. 8 weeks during which the adult continues to feed the juvenile.

Egg: (1) coloration variable, white to bluish-green, spotted dark-brown, red and black (79x51 mm).

Food: small marine schooling fish such as polar cod, capelin, sand lances, sprats and sand eels, also crustaceans and polychaetes.

Uria aalge

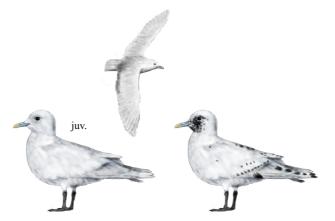
Common Guillemot, Lomvi, Nurzyk zwyczajny.

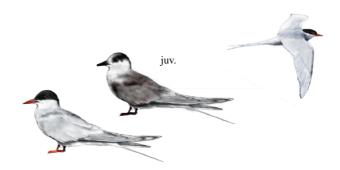
L: 44-30 cm, S: 64-71 cm, W: 0.77-1.25 kg.

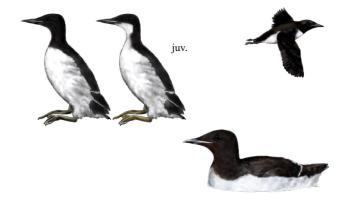
Nesting: uncommon (except on Bear Island), nests colonially on rocky cliffs, together with Kittiwakes.

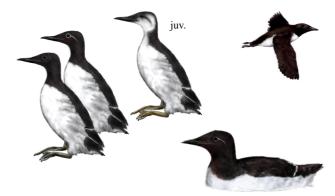
Egg:(1) coloration variable, white to bluish-green, spotted dark-brown, red and black (79x51 mm).

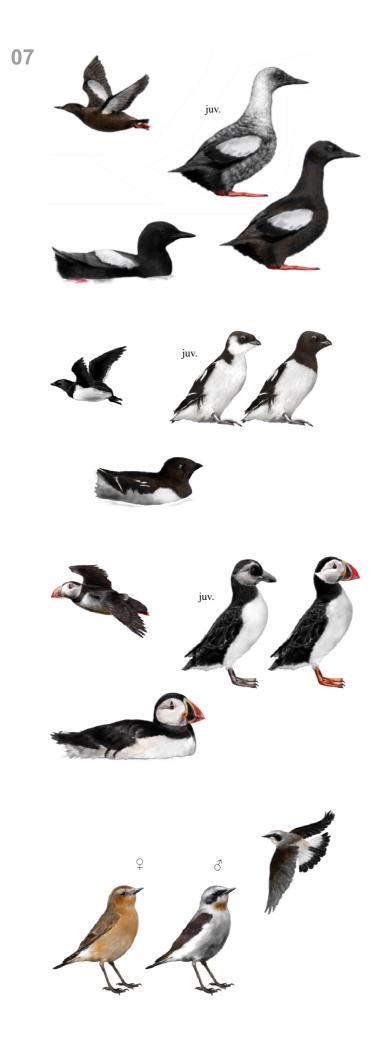
Food: small schooling fish, also crustaceans and polychaetes.











Cepphus grylle Black Guillemot, Teist, Nurnik białoskrzydły. L: 30-32 cm, S: 52-58 cm, W: 300-460 g. Nesting: nests singly or in small groups in rock crevices, in the upper parts of steep mountain slopes. Eggs: (2) white, cream or blue-green, spotted black or red-brown (59x40 mm). Food: inshore marine fish and invertebrates.

Alle alle **Little Auk, Alkekonge, Alczyk.** L: 17-19 cm, S: 40-48 cm, W: 140–192 g.

Nesting: very numerous, nests colonially in rock debris on gentle mountain slopes, occasionally in rock crevices on steep mountain walls.

Egg: (1) pale blue (49-34 mm). Food: tiny marine crustaceans, mainly copepods and amphipods. It feeds mainly on the shelf outside the fjord. Parent birds carry food to their chicks in their gular pouches.

Fratercula arctica **Atlantic Puffin, Lunde, Maskonur.** L: 26-29 cm, S: 47-63 cm, W: 300–650 g. Nesting: fairly numerous, nests in small aggregations in rock crevices. Egg: (1) white, sometimes with brown and purple marks (63x44 mm). Food: marine fish and crustaceans. Food for the chicks, consisting of numerous small fish, is carried in the beak.

Oenanthe oenanthe **Wheatear, Steinskvett, Białorzytka.** L: 15 cm, S: 28 cm, W: 17-30 g. Nesting: nests sporadically on tundra in rock crevices and between stones. Eggs: (5-7) sea-green (21x15.5 mm). Food: insects and spiders.

Plectrophenax nivalis **Snow Bunting, Snøspurv, Śnieguła.** L: 16.5 cm, S: 29 cm, W: 18–56 g. Nesting: nests singly on tundra in rock crevices. Eggs: (3-6) pale greenish, with spots (22x16 mm).

Food: dipterans, spiders, plant seeds and leaves.





Ursus maritimus Polar bear, Isbjørn, Niedźwiedź

polarny. L: 2.4-3 m, W: 300-700 kg.

Habitat & Behaviour: ice fields and seashores. Solitary, except when encountering large carrion, such as whales, which attracts many bears. Excellent swimmer and diver; it can travel hundreds of kilometres in the sea. Although not territorial and migrating over great distances with the drifting sea ice, they return to the same places every year.

Reproduction: distinct sexual dimorphism. Males grow throughout their lives and reach maturity at the age of 6. Females mature at age 4 and then stop growing. Pregnancy lasts 6-9 months; at the end of winter, the female gives birth to two cubs in a snow den.

Diet and feeding: Feeds primarily on ringed and bearded seals, hunted on the ice fields. When on land, eats whatever organic matter is available (carrion, offal, colonial birds, fish and invertebrates, plants).

Odobenus rosmarus rosmarus Walrus, Hvalros, Mors atlantycki.

L: 2.5-4.5 m, W: 2500 kg.

Habitat & Behaviour: coastal waters. Very sociable, forms herds of up to several thousand at traditional haulout sites.

Reproduction: sexual maturity (females: 4; males: 7 years old); gestation (15-16 months); one calf is born in April-June.

Diet and feeding: benthic bivalves, gastropods, also shrimps, crabs, polychaetes, sea cucumbers, and even ringed seals. Dives in shallow water up to 80 m for up to 30 min.

Phoca hispida

Ringed seal, Ringsel, Foka obrączkowana.

L: 1.0-1.85 m, W: 40-150 kg.

Habitat & Behaviour: coastal waters including fjords, dispersed on fast ice and in glacier bays.

Reproduction: sexual maturity (females: 4; males: 7 years old); gestation (9 months); single pup is born in March-April in snow lair constructed by female on thick ice.

Diet and feeding: benthic bivalves, gastropods; also shrimps, crabs, polychaetes, sea cucumbers, and even ringed seals. Dives in shallow water down to 80 m for as long as 30 min.

Phoca groenlandica

Harp seal, Grønlandssel, Foka grenlandzka.

L: 1.5-2.2 m, W: 115-180 kg.

Habitat & Behaviour: ice pack in open sea. Occurs in large aggregations.

Reproduction: sexual maturity (females: 4; males: 7 years old); gestation (9 months); a single pup is born in March-April in a snow lair constructed by the female on thick ice.

Diet and feeding: ice-associated fish (mainly polar cod) and crustaceans. Dives down to 46 m for as long as 20 min.

Phoca vitulina

Harbor seal, Steinkobbe, Foka pospolita.

L:1.5-1.9 m, W:80-168 kg.

Habitat & Behaviour: occurs singly in coastal waters but rests in groups using permanent haul-out sites on rocky shores. The apparently expanding population in Svalbard inhabits the NW shores of the archipelago.

Reproduction: sexual maturity (females: 4; males: 6-7 years old); gestation (9 months); a single pup is born in July on the shore.

Diet and feeding: fish (preferably salmon), molluses, crustaceans and occasionally seabirds. Forages singly up to 50 km from the coast, diving deep, down to 500 m for as long as 20 min.





juv.



Erignathus barbatus Bearded seal, Storkobbe, Fokowąs brodaty (Foka brodata).

L: 2-3 m, W: 300-700 kg.

Habitat & Behaviour: coastal waters including fjords, often rests singly on drifting ice.

Reproduction: sexual maturity (females: 5; males: 6 years old); gestation (11 months); a single pup is born in May on an ice floe.

Diet and feeding: benthic clams, squid and fish, which this seal detects in the bottom mud using its long whiskers. Dives deep, down to 300 m for as long as 20 min.



juv.

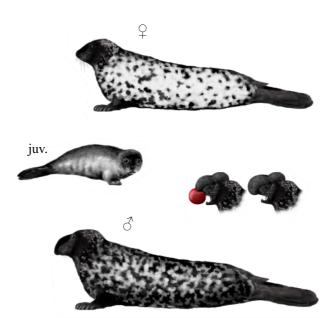




L: 2.5-3 m, W: 250-400 kg. Habitat & Behaviour: open sea close to the edge of drifting pack ice.

Reproduction: sexual maturity (females: 3-6; males: 5-7 years old); gestation (11.5 months); a single pup is born on ice in March-April. Males blow a bright red balloon-like membrane from their nostrils to threaten other males and/or to attract females.

Diet and feeding: crustaceans and fish; also squid, starfish and mussels. Dives deep (100–600 m), sometimes down to 1000 m; can remain under water for 25-60 minutes.



10

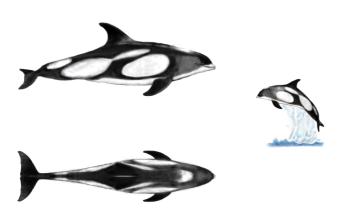


Lagenorhynchus acutus Atlantic white-sided dolphin, Kvitskjering, Delfinowiec białoboki. L: 1.9-2.8 m, W: 180-250 kg.

Habitat & Behaviour: occurs in coastal waters in pods of several dozen individuals.

Reproduction: sexual maturity (females: 6-12; males: 7-11 years old); gestation (11 months); one calf 1 m long is born in June-July.

Diet and feeding: pelagic fish, e.g. herring, mackerel, cod; also squid.



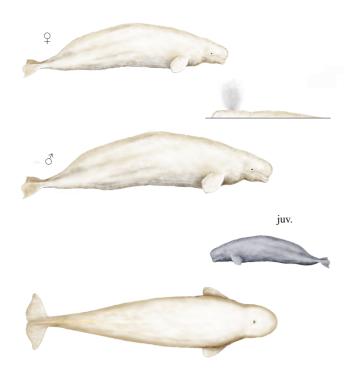
Lagenorhynchus albirostris White-beaked dolphin, Kvitnos, Delfin białonosy.

L: 2.3-3.1 m, W: 270 kg.

Habitat & Behaviour: occurs in coastal waters in small pods, usually less than ten individuals, but sometimes in groups of several hundred animals. Dives down to depths of at least 45 m.

Reproduction: sexual maturity (females: 6-10; males: 8-12 years old); gestation (11 months); one calf 1.2 m long is born between June and September.

Diet and feeding: mostly gadoid fish. Social feeders, frequently accompanying other cetaceans.



Delphinapterus leucas White whale (Beluga), Hvithval, Białucha (Wal biały). L: 3.5-5 m, W: 1.5 t.

Habitat & Behaviour: occurs in small pods (5-30 ind.) in shallow coastal waters, often swimming into fjords. In summer, hundreds of moulting belugas may gather in river estuaries. Swims slowly (3-9 km/h), does not jump out of the water, and can even swim backwards. Usually dives down to 20 m for 3-5 min. (max. > 700 m. for 20 min.). Reproduction: sexual maturity (females: 4-7; males: 7-9 years old); gestation (12-14.5 months); one calf 1.5 m long weighing 80 kg is born every three

years in July-August. Diet and feeding: a variety of fish, as well as squid, shrimp and molluscs.

Monodon monoceros Narwhal, Narhval, Narwal jednozębny. L: 3.3-5.5 m, W: 2 t.

Habitat & Behaviour: occurs in small pods (5-10) at the edge of the ice pack. In summer, forms larger groups in shallow waters. For the winter it migrates to icefree areas. The absence of a dorsal fin makes ice swimming easier. The male's upper left tusk grows to a length of 185-275 cm. Dives frequently (> 15 times a day) and very deep (800-1500 m) for 25 min.

Reproduction: sexual maturity (females: 5-8; males: 11-13 years old); gestation (14 months); one calf 1.6 m long is born every 2-3 years in June-August.

Diet and feeding: fish, such as halibut and cod, cuttlefish, shrimp and squid.

Hyperoodon ampullatus **Northern bottlenose whale, Nebbhwal, Butlogłów północny (Dogling).** L: 7-9.5 m, W: 5.8-7.5 t.

Habitat & Behaviour: occurs in deep coastal areas in small pods (2–20 ind.), but sometimes forms herds of several hundred individuals. Swims slowly and stays afloat for a long time between dives. Blows out a

small fountain 1 m high.Reproduction: sexual maturity (females:10; males: 9 years old); gestation (12 months); one calf 3 m long is born every2-3 years in March-May.

Diet and feeding: like the sperm whale, prefers deep-water squid taken during exceptionally deep dives (>2000m) lasting for more than 2 hours. Fish are also taken.

Orcinus orca

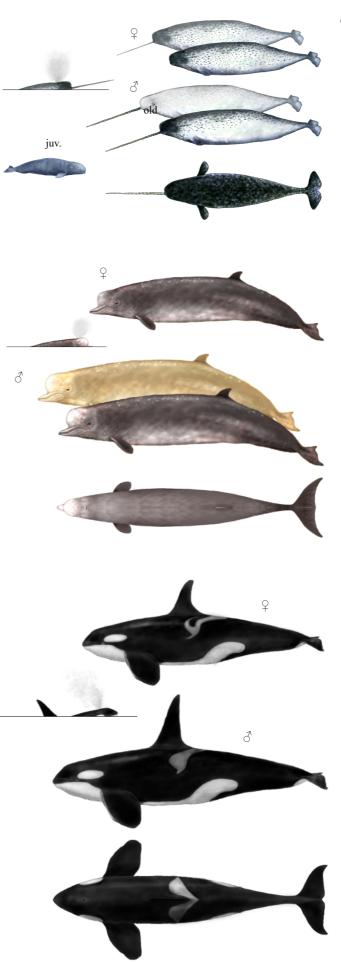
Killer whale, Spekkhogger, Orka oceaniczna.

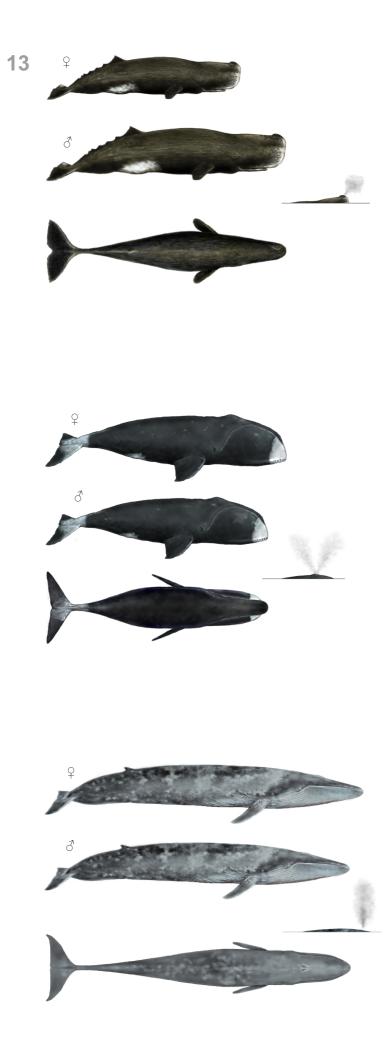
L: 5.7-9.8 m, W: 3-9 t.

Habitat & Behaviour: occurs in open waters, often at the edge of ice fields. Very social, forms permanent pods of 5-40 ind. Swims very fast, often jumping out of the water. By riding the waves, it can swim much faster (45 km/h) than normal (13 km/h), while consuming the same energy. Dives to depths of 100-450 m.

Reproduction: sexual maturity (females: 6-10; males: 15-25 years old); gestation (17-18 months); one calf 2.4 m long weighing 150-200 kg is born every 2-3 years at any time of the year.

Diet and feeding: social hunters targeting a wide variety of prey, including fish, cephalopods, mammals (pinnipeds, other whales), seabirds (often penguins in Antarctica) and marine turtles.





Physeter macrocephalus Sperm whale, Spermhval, Kaszalot spermacetowy.

L: 13-21 m, W: 35-75 t.

Habitat & Behaviour: highly social, it occurs in open waters in small pods consisting of females and young males. Mature males (bulls) live alone outside the mating season. One of the most sexually dimorphic of all cetaceans. Swims fast, emerging every 45-55 min to breathe. Exhalation is noisy, with a single fountain rising up to 2 m and pointing forward and to the left at an angle of 45°. Often rests on the sea surface.

Reproduction: sexual maturity (females: 9; males: 18 years old); gestation (14-16 months); one 4 m long calf weighing near 1 t is born every 4-12 years.

Diet and feeding: feeds mainly on large deep-sea cephalopods (preferably giant squid), also on large fish, including sharks, and pinnipeds. In search of food, dives extremely deep (usually to 300-800 m, but is known to reach as far down as 3000 m) and stays under water up to 100 min.

Balaena mysticetus

Bowhead whale (Greenland whale), Gronlandshval, Wal grenlandzki.

L: 18-21 m, W: 100 t.

Habitat & Behaviour: the only baleen whale to spend all its life in the Arctic. Occurs alone or in small pods, often among the pack ice. Undertakes seasonal long-distance migrations governed by the ice conditions. The lack of a dorsal fin makes it easier to swim under the ice and the massive head allows it to pierce ice even 0.6 m thick. Being slow swimmers (2-5, max. 10 km/h), they were easy to hunt. Almost exterminated during large-scale whaling in the 17th-19th centuries. Every 5-15 min. takes 6-12 breaths resulting in a double V-shaped fountain 6.1 m high. Does not dive deep, only down to 150 m; exposes the caudal fin during descent and remains under water for up to 1 h.

Reproduction: sexual maturity (10-15 years old); gestation (13-14 months); one 4 m long calf weighing 1 t is born every 3-4 years.

Diet and feeding: tiny zooplankton, mainly copepods and amphipods. Swims slowly with an open gape and filters crustaceans from the water surface (c. 1.8 t consumed daily).

Balaenoptera musculus Blue whale, Blahval, Płetwal błękitny.

L: 30 m, W: 130 t.

Habitat & Behaviour: usually occurs singly or in small pods in open waters, avoiding shelf areas and ice pack fields. Females are larger than males. Swimming speed: 4.5 km/h. Dives for 10-30 min, then takes 12-16 breaths, blowing out a 9 m high double fountain. Exposes caudal fin on descent.

Reproduction: sexual maturity (10 years old); gestation (10-11 months); one 7 m long calf weighing 2.8-3 t is born every 2-3 years.

Diet and feeding: zooplankton, almost exclusively krill, filtered from the 100 m surface layer.

Balaenoptera borealis Sei whale, Seihval, Pletwal czerniakowy (Sejwal).

L: 12-19 (max. 21 m), W: 20-45 t. Habitat & Behaviour: occurs alone or in small pods (2-6 ind.) in open deep waters, avoiding shelf areas and ice pack fields. Females are considerably larger than males. Swims very fast, reaching speeds of up to 50 km/h, but dives to shallow depths for 5-15 min without exposing the dorsal fin. Takes 1-3 breaths between consecutive dives, and a double fountain is blown out at intervals of c. 60 sec.

Reproduction: sexual maturity (8-9 years old); gestation (11-12 months); one 4.5 m long calf weighing 0.68 t is born every 2-3 years.

Diet and feeding: copepods, krill, other zooplankton, and small fish.

Balaenoptera acutorostrata Minke whale, Vagehval, Pletwal karłowaty.

L: 6-9 m, W: 5 t.

Habitat & Behaviour: occurs in coastal

waters, often covered with lose ice. The minke is the smallest of the baleen whales, normally observed singly, sometimes in twos or threes swimming quite fast (c. 30 km/h). Makes shallow dives every 3-5 minutes and then takes 5-8 breaths, blowing out small, indistinct fountains 1-2 m high.

Reproduction: sexual maturity (6-8 years old); gestation (10 months); the single calf is 2.5-2.8 m long and weighs 150-300 kg. The calving interval is only one year, so females are often simultaneously pregnant and lactating. Diet and feeding: primarily fish, also pelagic crustaceans and cephalopods.

Balaenoptera physalus Fin whale, Finnhval, Finwal (płetwal zwyczajny).

L: 27 m, W: 48 (max. 74 t).

Habitat & Behaviour: occurs singly or in small pods (6-10 ind.) in open waters, avoiding shelf areas and ice pack fields. Swims very fast (37-46 km/h) and dives down to 470 m for 6-17 min, then takes 4-5 breaths in 2 minutes. Blows out a 5 m high double fountain.

Reproduction: sexual maturity (6-12 years old); gestation (11-12 months); one 5-7 m long calf weighing 3 t is born every 2-3 years.

Diet and feeding: small schooling fish, squid, and crustaceans, including copepods and krill.

Megaptera novaeangliae

Humpback, Knølhval, Długopłetwiec oceaniczny (Humbak).

L: 13-19 m, W: 25-40 t.

Habitat & Behaviour: cosmopolitan, inhabits all major oceans, including the Arctic and Antarctic ice edge zones. Occurs in pods of 2-20 individuals. Often jumps out of the water. Blows out a 3 m, heart-shaped bushy fountain.

Reproduction: sexual maturity (5-7 years old); gestation (11.5 months); one 4.0-4.6 m long calf 1.5 t is born every 2-3 years in winter.

Diet and feeding: krill and small schooling fish.

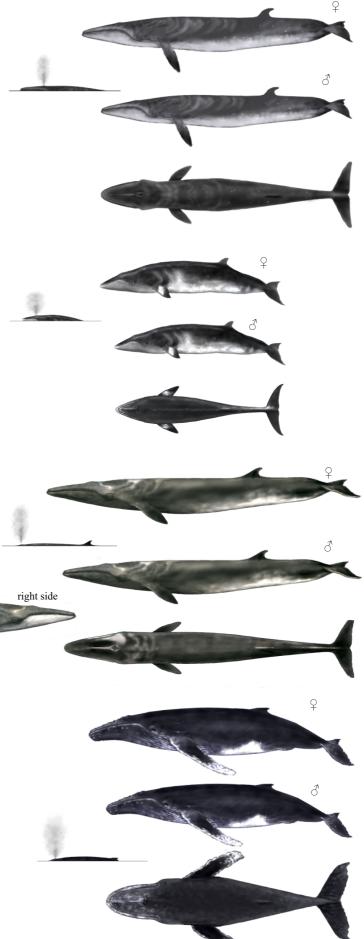


Table of contents (Latin names) with page number

| Alle alle | 07 | Larus marinus | 05 |
|----------------------------|----|----------------------------|----|
| Anser brachyrhynchus | 01 | Megaptera novaeangliae | 14 |
| Arenaria interpres | 04 | Monodon monoceros | 12 |
| Balaena mysticetus | 13 | Morus bassanus | 03 |
| Balaenoptera acuturostraca | 14 | Odobenus rosmarus rosmarus | 09 |
| Balaenoptera borealis | 14 | Oeananthe oenanthe | 07 |
| Balaenoptera musculus | 13 | Orcinus orca | 12 |
| Balaenoptera physalus | 14 | Pagophila eburnea | 06 |
| Branta bernicla | 01 | Phalaropus fulicarius | 03 |
| Branta leucopsis | 01 | Phoca groenlandica | 09 |
| Calidris maritima | 04 | Phoca hispida | 09 |
| Cephus grylle | 07 | Phoca vitulina | 10 |
| Charadrius hiaticula | 03 | Physeter macrocephalus | 13 |
| Clangula hyemalis | 02 | Plectrophenax nivalis | 08 |
| Cystophora cristata | 10 | Rissa tridactyla | 05 |
| Delphinapterus leucas | 11 | Somateria mollisima | 01 |
| Erignathus barbatus | 10 | Somateria spectabilis | 02 |
| Fratercula arctica | 07 | Stercorarius parasiticus | 04 |
| Fulmarus glacialis | 03 | Stercorarius pomarinus | 04 |
| Gavia stellata | 02 | Stercorarius skua | 05 |
| Hyperoodon ampullatus | 12 | Sterna paradisea | 06 |
| Lagenorhynchus acutus | 11 | Uria aalge | 06 |
| Lagenorhynchus albirostris | 11 | Uria lomvia | 06 |
| Lagopus muta hyperborea | 02 | Ursus maritimus | 09 |
| Larus hyperboreus | 05 | | |

