

Phoca hispida SCHREBER, 1775



V. Ree

The species was first described as *Phoca hispida* by Schreber in 1775. Fabricius (1776) called it *Phoca foetida*.

Distribution

World: *Phoca hispida* has a circumpolar distribution throughout the Arctic basin and peripheral seas, including the Bering Sea. In the north-western Atlantic south to Labrador. Isolated populations in the Baltic region.

Europe: *P. hispida* is found along the coasts of northern Europe, north of the Arctic circle and in the Baltic Sea. Isolated populations in Lake Saimaa (Finland) and Lake Ladoga (Russia).

Geographic variation

A total of four subspecies are recognized within Europe, each with their own specific range. The Arctic ringed seal, *P. h. hispida* (Schreber, 1775), the Baltic ringed seal, *P. h. botnica* (Gmelin, 1785) and two freshwater species respectively the Ladoga seal, *P. h. ladogensis* (Nordquist 1899), and the Saimaa seal *P. h. saimensis* (Nordquist 1899). The Baltic, Saimaa and Ladoga ringed seals have been isolated from each other for only 8000-9000 years and about 11000 years from the Arctic ringed seal. Morphological differences are largely attributed to the period of isolation, although environmental factors also influence the rate of differentiation.

Ringed seal

AL	-	LU	-
BG	-	LV	Pogainais ronīs
CZ	Tuleň kroužkovaný	MK	Прстенеста фока
DE	Ringelrobbe	MT	-
DK	Ringsæl	NL	Ringelrob
EE	Viigerhüljes	NO	Ringsel
ES	Foca ocelada	PL	Nerpa
FI	Norppa	PT	Foca-anelada
FO	Ringkópur	RO	Foca-inelatã
FR	Phoque annelé	RU	Кольчатая нерпа; Балтийская нерпа
GR	-	SE	Vikare
HR	Kolutasti tuljan	SI	Kolobarjasti tjulenj
HU	Gyűrűsfóka	SK	Tuleň krúžkovaný
IR	-	TR	Halkali fok
IS	Hringanóri	YU	-
IT	Foca dagli anelli		
LT	Žieduotasis ruonis		

Habitat

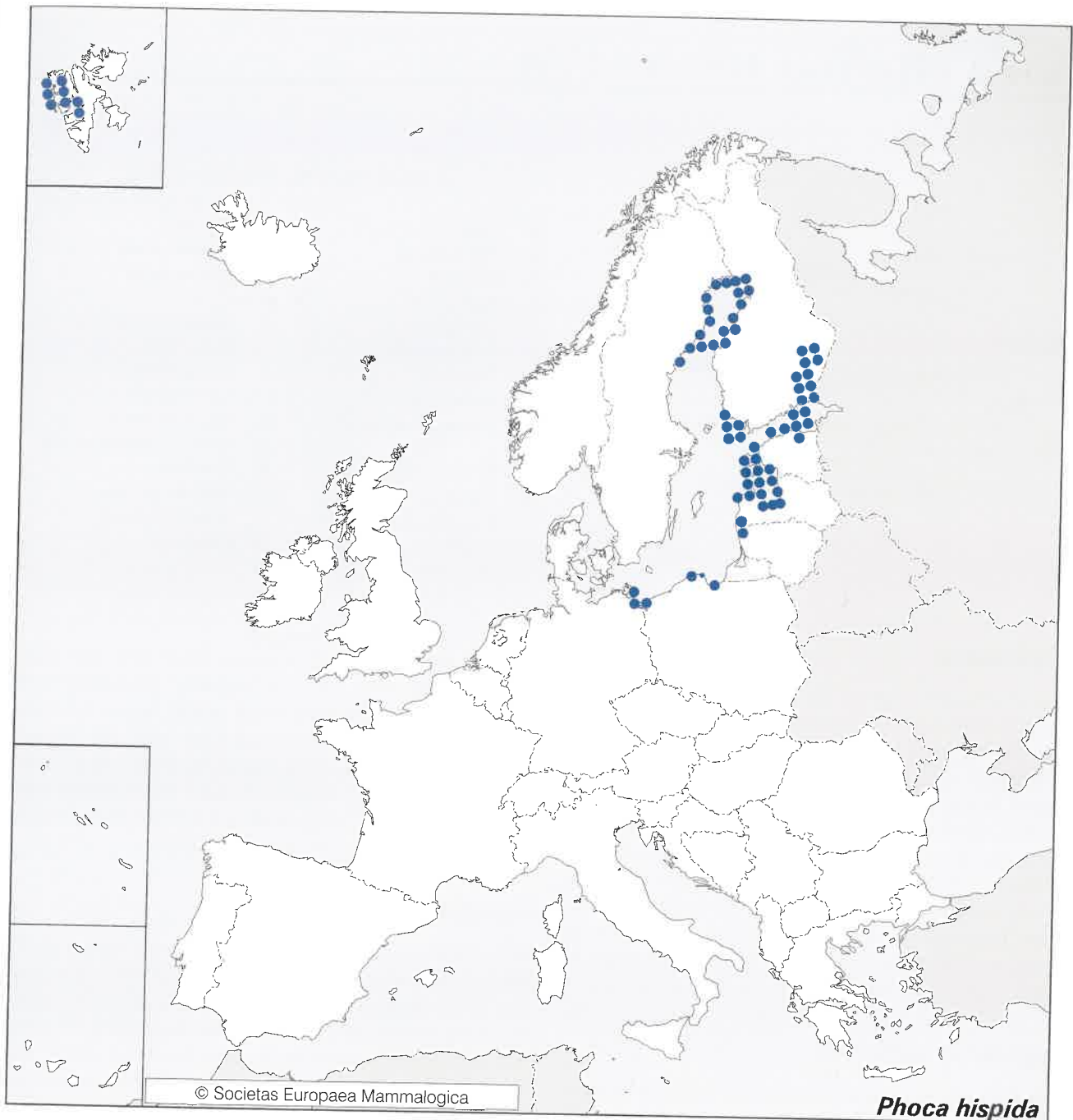
In general, the seals' distribution changes seasonally, depending on breeding, ice conditions and food availability. All species breed in winter or spring. Pupping habitats are comprised of lairs or cavities on shore-fast or drifting ice covered by a good depth of snow. These cavities protect especially the pups from predators and against the cold and wind. Locations of breeding areas are variable, due to variations in climatic factors. During the summer, small groups or single seals can be found hauled out on the rocks or ice. The seals seem to feed on most available fish species.

Population status

The species is difficult to census because its distribution is large and variable, and because pups are born in lairs. The Arctic ringed seal (6-7 million) is one of the most abundant phocid seals in the world and the population in general is not in danger, though it has been considered that local populations have been over-exploited (in the Eastern Canadian Arctic). The other, much less abundant, subspecies are vulnerable or even endangered. Estimates are: *P. h. botnica*: 3400, *P. h. saimensis*: 200 animals and *P. h. ladogensis*: 5000.

International legal & conservation status

Bern Convention, Appendix III, but *P. h. saimensis* and *P. h. ladogensis* are on Appendix II.
EU Habitats & Species Directive, Annex II (*P. h. botnica*),



Annex II* & Annex IV (*P. h. saimensis*), Annex V. IUCN Red List, *P. h. botnica* and *P. h. ladogensis* Vulnerable; *P. h. saimensis*, Endangered.

Other information

The lake-inhabiting species and the Baltic seals are threatened by a reduction of their lairing possibilities as humans construct buildings along the shores where they lair. Pollution is either already a problem or could become one in these enclosed areas. Locally, competition for fish exists and seals are accidentally caught. This is especially a threat to *P. h. botnica* and *P. h. saimensis*. The latter is also threatened by the artificial lowering of

the water level in Lake Saimaa. Relatively little is known about *P. h. hispida*, but the population as a whole does not seem to be threatened. Possible climatic changes could affect these ice-breeding species as the animals depend on the stability of the ice and snow for their lairs.

Literature

Helle (1992)

Reijnders *et al.* (1993)

Reijnders *et al.* (1997)

S. M. J. M. Brouseur, E. H. Ries & P. J. H. Reijnders