

## SPECIES INFORMATION SHEET

*Lutra lutra*

English name: <b>Eurasian otter (Common otter, European otter, European river otter, Old world otter)</b>	Scientific name: <b><i>Lutra lutra</i></b>	
Taxonomical group: Class: Mammalia Order: Carnivora Family: Mustelidae	Species authority: Linnaeus, 1758	
Subspecies, Variations, Synonyms: –	Generation length: around 3 years	
Past and current threats (Habitats Directive article 17 codes): Contaminant pollution (H03), Construction (J02.02, E01, E02), Hunting (incl. illegal; F03.01, F03.02.04), Eutrophication (H01.05), Bycatch (F03.02.05), Water traffic (D03, G01.01.01), Other threat factors (incl. road traffic, D01.02, G01.03, G01.03.02), Oil spills (H03.01)	Future threats (Habitats Directive article 17 codes): Contaminant pollution (H03), Construction (J02.02, E01, E02), Eutrophication (H01.05), Bycatch (F03.02.05), Water traffic (D03, G01.01.01), Other threat factors (incl. road traffic, D01.02, G01.03, G01.03.02), Hunting (incl. illegal; F03.01, F03.02.04), Oil spills (H03.01)	
IUCN Criteria: <b>D1</b>	<b>HELCOM Red List Category:</b>	<b>NT Near Threatened</b>
Global / European IUCN Red List Category NT / NT	Habitats Directive: Annexes II and IV	
<p>Protection and Red List status in HELCOM countries:</p> <p>Protection in HELCOM countries:</p> <p>The Eurasian otter is strictly protected under international legislation and conventions. It is listed in Appendix I of the CITES, Appendix II of the Bern Convention, Annexes II and IV of the EU Habitats and Species Directives and Appendix I of the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals (CMS)) which recommends the highest degree of protection. Protected in all HELCOM countries (Russia?), but hunting permits exist. In Finland, the otter is protected under the Hunting Act 37§. Derogations from the protection can be issued in accordance with the Habitats Directive 16 § as to avoid damage to aquaculture, and in recent years (2008–2012), the number of killed otters has varied between 1 to 9 annually.</p> <p>The international IUCN/SSC action plan and several local action plans exist for the species.</p> <p>A European breeding program for self-sustaining captive populations was started in 1985, with some HELCOM countries participating.</p> <p>In Sweden otters have been released during early 1990s to support the native population.</p> <p>Monitoring programs have been established in all HELCOM countries, but the methods vary.</p> <p>In Russia protected in the Leningrad region.</p> <p>Red List status in HELCOM countries:</p> <p>Denmark: VU, Estonia: LC, Finland: NT, Germany: 3 (Vulnerable), Latvia: –, Lithuania: 5 (Rs, Restored), Poland: –, Russia: Included in the Red book of Nature of the Leningrad region, Sweden: VU</p>		

## Distribution and status in the Baltic Sea region

The otter has increased in the Baltic Sea area during the last c. 10–20 years (eg Tumanov 1990, Brezinski et al. 1996, Ozolins 1999, Elmeros et al. 2006, Meel 2008, Arrendal & Blomkvist 2009, Baltrunaite et al. 2009, Wikman 2010, Grunwald-Schwark 2011). When otter numbers were the lowest (1960s–90s) otters probably hardly existed along the coasts. The populations have expanded from freshwater habitats towards the coast and coastal populations may still be largely supported by freshwater populations. Few countries or parts of countries have surveyed otter distribution along the coast, still, from this summary of distribution data it is shown that otters are distributed sparsely along all coasts, often dependent on the distribution in the freshwater habitats on the mainland. Lack of otters is evident on the Danish islands, largely along the Swedish western and southern coasts. Even though observational data is

## SPECIES INFORMATION SHEET

## *Lutra lutra*

missing from the current map, the Finnish otter population, which has doubled during the last 20 years for the whole country, has increased clearly also in the coastal areas (pers. comm. Arto Pummila, Visa Eronen and Jukka Rintala). Today the population is estimated to roughly 2500 individuals, the main part of the population occurring in the fresh water areas (Maa- ja metsätalousministeriö 2012).

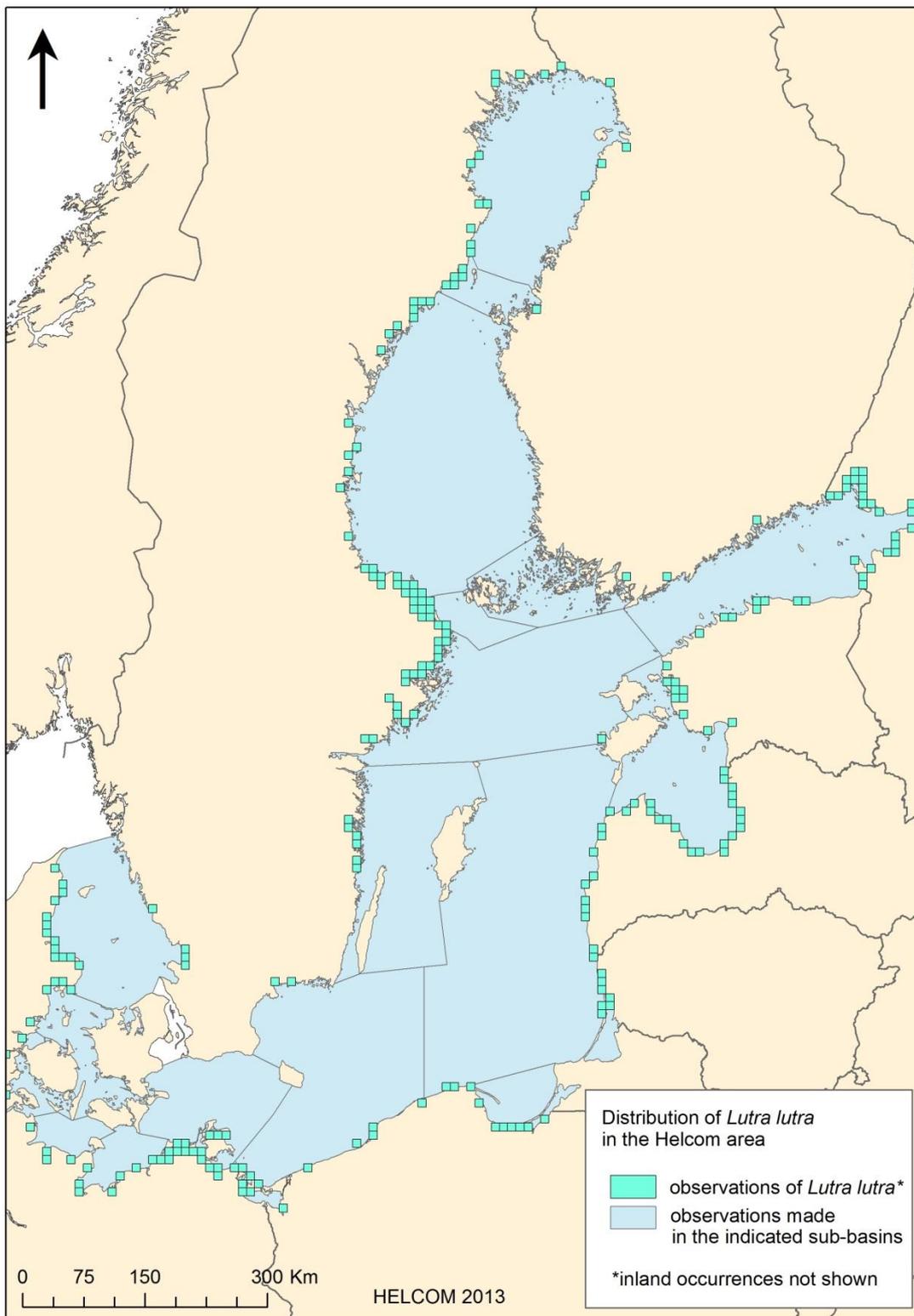


Eurasian otter. Photos by Johanna Arrendal/MyraNatur.

## SPECIES INFORMATION SHEET

*Lutra lutra*

## Distribution map



## SPECIES INFORMATION SHEET

*Lutra lutra*

### Habitat and ecology

Otters live in all kinds of aquatic habitats, both freshwater (eg. lakes, rivers, streams, ponds, marshes, estuaries) and sea (coasts, archipelagos) in both natural and artificial habitats (Mason & Macdonald 1986). On the shore it needs holts or sheltered places above the ground to rest at, whereas foraging is mostly done in the water, often quite close to land as it dives in relatively shallow waters. In coastal areas the otter needs access to freshwater to wash the salt from its fur (Kruuk 1995). In winter the otter needs access to open water and hence is restricted by ice cover. However, the otter often can find its way down under the ice through cracks and open water.

The otter feeds mainly on fish, often exceeding 80% of the diet (Erlinge 1969, Webb 1975), and additionally feeds on crustaceans, amphibians, birds, small mammals and aquatic insects.

The otter is largely solitary and has a home-range which ideally contains everything that the individual needs (access to food, resting and breeding sites). The size of the home-range differs with type and productivity of the habitat, but typically a female home-range involves a few linear kilometers, whereas males often have at least twice as large area (Erlinge 1968, Green et al. 1984, Kruuk et al. 1989; Ruiz-Olmo et al. 2001). Otter home-ranges overlap, especially female and male ones (Erlinge 1968). Females with cubs tend not to overlap with other females, as the resources then are crucial to the survival of the cubs (Erlinge 1968).

Otters become sexually mature at the age of two (Kruuk 1995). The gestation period is around 63–65 days. The cubs can be born all-year-around, but when breeding seasons exist these tend to be correlated with food availability (Kruuk 1995). Many European studies show that the mean number of cubs are around 2.0, but varies between one and four (Erlinge 1967, Jenkins 1980, Mason & Macdonald 1986, Kruuk et al. 1991). The female rears the cubs alone in a holt (natural cavity, a den built by other species, or dug by the otter itself). The natal holt can be situated several hundred meters from the shore line (Kruuk 1995). The female does not have a litter every year and the cubs follow their mother for about a year, sometimes longer (Erlinge 1967, Kruuk 1995). In the wild otters do not become very old. A study from Shetland shows a mean of 3–4 years (Kruuk 1995) and in Sweden some otters can reach the age of at least six years in the wild, although many resident individuals disappeared much earlier than that (Arrendal 2007). Still, otters in captivity can reach the age of at least seventeen years (Acharjyo & Mishra 1983).

### Description of major threats

This summary of threats leans on threats listed in the international IUCN red list for the species (Ruiz-Olmo et al. 2008), the international IUCN otter action plan (Foster-Turley et al. 1996), the assessment of the Swedish action plan (Arrendal 2010), and the Swedish red list facts (Olsson et al. 2011). The Eurasian otter has suffered from severe decline since the beginning of the 20<sup>th</sup> century. Different threats have been pointed out as the major threat in different parts of its distribution area, although habitat destruction seems to be a common threat in most areas. Many wetland habitats have been destroyed during the last century, resulting in a depletion of suitable habitats for otters. Poaching has been pointed out as a major factor in some areas. The otter has always been subjected to a certain hunting pressure as a fur animal and as a food concurrent, but locally there has been a heavy hunting pressure. Pollution has been pointed out as a major threat in Europe, with heavy contamination exposure through the food web. Being a top predator in the marine food web, the otter is susceptible to environmental contamination (especially organochlorines and mercury). As otters have large home ranges, they are also susceptible to landscape barriers, such as roads and railways, with mortality risk as a result where they need to cross the roads and railways.

## SPECIES INFORMATION SHEET

*Lutra lutra*

For the Baltic Sea area, the threats of today consist of toxic compounds through pollution. Sources are both from land use (via rivers flowing into the Baltic Sea), air pollution, and direct wastes into the sea. Oil spills could eradicate otters locally or regionally. Canalization and removal of bottom sediments decreases the amount of food available and also limits the availability of holts and places to rest at. Roads and railroads built in coastal areas can cause road and railroad mortality. Use of fertilizers and contamination of water by sewage can cause eutrophication problems, which leads to lower amount of available food. Heavy boat and ferry traffic in marine environment can cause disturbance to otters, although more sudden disturbances might be of greater importance, such as motorized aqua sports and snow mobiles driven on the ice. Urbanization leads to less availability of holts and places to rest at. Human induced changes in hydraulic conditions changes the availability of food. Otters get caught in fishing gear which leads to drowning incidents. Some illegal hunting exists. Otters also get caught unintentional in traps set for e.g. mink and beaver. Otters sometimes cause a conflict with fish farming and other aquaculture as otters can cause severe damage to the farmers. In the HELCOM countries, hunting is not allowed, but derogation from its protection can be issued to fish farms or other forms of aquaculture. However, there are also other mitigation tools and measures to keep otters from the fish and crustacean farms.

### Assessment justification

The 20th century's very dramatic population decline hit the otters in the Baltic Sea hard, with probably hardly any otters remaining in coastal areas. Otters have thus largely disappeared from coastal areas already a long time ago, and for this reason most countries do not survey coastal areas. Coastal otter surveys are also regarded more labour intensive, and consequently the data is very scarce. However, it appears that otters have been spreading back towards the coast and slowly reaching the coast and archipelagos during the last 20 years.

The number of mature individuals in coastal areas is still estimated to be low, less than 1000 but the estimate is very uncertain due to the lack of coastal monitoring. The coastal otter could be categorized as Vulnerable (VU) according to criterion D1 in the HELCOM area. However, as the otters in the coastal HELCOM area are not an isolated population but are tightly connected to freshwater populations, there is a rescue effect from freshwater habitats, which motivates downgrading of the Red List category to Near Threatened (NT).

### Recommendations for actions to conserve the species

The recommendations for actions lean on actions listed in the international IUCN red list for the species (Ruiz-Olmo et al. 2008), the international IUCN otter action plan (Foster-Turley et al. 1996), the assessment of the Swedish action plan (Arrendal 2010), and the Swedish red list facts (Olsson et al. 2011). It is necessary to lower the emission and discharging of toxic compounds that have a presumed negative impact on otter populations (especially organochlorines and mercury). It is important to conserve and, where needed, also to restore shore lines and water communities that are potential otter habitat. Continued progress to reduce the eutrophication problem will favour the otter. Road and railroad mortality can be decreased by building fauna passages adapted to otters. Routines and pointed achievement in measures to keep otters from fish farms will decrease the conflict between otter and humans and will hopefully reduce illegal hunting and also lead to less hunting permits. Stop grids for fish traps already exist, but should be manufactured and put on the market so they can be easily accessed, even if the use in most countries will be optional. Entrance holes of both live traps and traps that kill instantly should have the same measures (7 cm) if to be used in places where otters could potentially get trapped. Traps for beaver placed under water should normally not be allowed where otters are distributed. The number of otters along the coasts is growing and, therefore, reintroduction or in other ways releases of otters is not needed, nor eligible, as they risk disrupting natural genetic variation that can be favourable to the population. It is necessary to keep legally protecting the species until its conservation status has reach beyond a favourable limit. To be able to follow the development of the

## SPECIES INFORMATION SHEET

*Lutra lutra*

otter population in the HELCOM area, it is of great importance to keep monitoring programs running and survey all suitable otter habitat, not only parts, coastal habitat included.

### Common names

Denmark: odder, Estonia: saarmas, Finland: saukko, Germany: Fischotter, Latvia: –, Lithuania: paprastoji ūdra, Poland: wydra europejska/wydra zwyczajna, Russia: обыкновенная/порешня/речная выдра, Sweden: utter

### References

- Acharjyo LN, Mishra CG. 1983. A note on the longevity of two species of Indian otters in captivity. *Journal of the Bombay Natural History Society* 80(3):636.
- Andersson L. 2010. Barmarksinventering av utter i Jönköpings, Kalmar, Kronobergs och Blekinge län 2007/2008. Meddelande 2010:09 Länsstyrelsen i Jönköpings län (in Swedish).
- Arrendal J. 2007. Population dynamics parameters obtained by noninvasive genetic methods in a Eurasian otter population. In: Arrendal J. 2007. Conservation genetics of the Eurasian otter in Sweden. *Acta Universitatis Upsaliensis* 278.
- Arrendal J. 2010. Utvärdering av åtgärdsprogram för bevarande av utter (*Lutra lutra*) 2006–2010. MyraNatur rapport 2010:4 (in Swedish).
- Arrendal J, Blomkvist P. 2007. Utterns förekomst längs kusten och Dalälven i Uppsala län 2006. Meddelande 2007:7 Länsstyrelsen Uppsala län (in Swedish).
- Arrendal J, Blomkvist P. 2009. Utterns förekomst i Stockholms län 2007–2008. Rapport 2009:02 Länsstyrelsen i Stockholms län (in Swedish).
- Backe S. 2006. Utter i Norrbottens län. Sammanställning av utterinventeringar år 1974–2006. Länsstyrelsen i Norrbottens län (in Swedish).
- Baltrunaite L, Balciauskas L, Matulaitis R, Stirke V. 2009. Otter distribution in Lithuania in 2008 and changes the last decade. *Estonian Journal of Ecology* 58:94–102.
- Bisther M. 2006. Inventering av utter (*Lutra lutra*) i Skåne 2006. Länsstyrelsen i Skåne län (in Swedish).
- Bisther M. 2007a. Inventering av utter 2007 i Västra Götalands län. Rapport 2007:90 Länsstyrelsen Västra Götalands län (in Swedish).
- Bisther M. 2007b. Inventering av utter i Södermanlands län 2005. Rapport 2007:7 Länsstyrelsen Södermanlands län (in Swedish).
- Bisther M. 2008. Barmarksinventering av utter (*Lutra lutra*) i Hallands län 2007. Meddelande 2008:11 Länsstyrelsen i Hallands län (in Swedish).
- Bisther M. 2011a. Uttern i Gävleborgs län 2009. Rapport 2011:9 Länsstyrelsen Gävleborg (in Swedish).
- Bisther M. 2011b. Utter i Östergötland. Inventering och övervakning 2009/2010. Rapport 2011:13 Länsstyrelsen Östergötland (in Swedish).
- Bisther M, Norrgrann O. 2008. Uttern i Västernorrland. Resultat från inventeringar 1989–2005. Rapport 2008:7 Länsstyrelsen Västernorrland (in Swedish).
- Björklund M, Arrendal J. 2008. Demo-genetic analysis of a recovering population of otters in central Sweden. *Animal Conservation* 11:529–534.
- Brezinski M, Romanowski J, Cygan JP, Pabin B. 1996. Otter *Lutra lutra* distribution in Poland. *Acta Theriologica* 41:113–126.
- Elmeros M, Hammershoj M, Madsen AB, Sogaard B. 2006. Recovery of the otter *Lutra lutra* in Denmark monitored by field surveys and collection of carcasses. *Hysterix It J Mamm* 17:17–28.
- Erlinge S. 1967. Home range of the otter *Lutra lutra* L. in southern Sweden. *Oikos* 18:186–209.
- Erlinge S. 1968. Territoriality of the otter *Lutra lutra* L. *Oikos* 19:81–98.
- Erlinge S. 1969. Food habits of the otter (*Lutra lutra* L) and the mink (*Mustela vison* Schreber) in a trout water in southern Sweden. *Oikos* 20:1–7.
- Estonian eBiodiversity. Red List 2008 results and species information available at <http://elurikkus.ut.ee/prmt.php?lang=eng>

## SPECIES INFORMATION SHEET

*Lutra lutra*

- Foster-Turley P, Macdonald S, Mason C (eds). 1996. Otters – an action plan for their conservation. IUCN/SSC Otter Specialist Group.
- Green J, Green R, Jefferies DJ. 1984. A radio-tracking survey of otters *Lutra lutra* on a Perthshire river system. *Lutra* 27:85–145.
- Grunwald-Schwark V. 2011. The European otter (*Lutra lutra*, L. 1758) population in Schleswig-Holstein/Germany – Status quo, preservation, development and conservation recommendations. Master thesis, Christian Albrechts University of Kiel.
- Jenkins D. 1980. Ecology of otters in northern Scotland. I. Otter (*Lutra lutra*) breeding and dispersion in mid-Deeside, Aberdeenshire, in 1974–79. *Journal of Animal Ecology* 49:713–735.
- Karlsson M. 2007. Utter i Västerbottens län 2005–2007. Meddelande 4:2007 Länsstyrelsen Västerbotten (in Swedish).
- Kruuk H. 1995. Wild otters. Predation and populations. Oxford University Press, Oxford.
- Kruuk H, Conroy JWH, Moorhouse A. 1991. Recruitment to a population of otters (*Lutra lutra*) in Shetland, in relation to fish abundance. *Journal of Applied Ecology* 28:95–101.
- Kruuk H, Moorhouse A, Conroy JWH, Durbin L, Freares S. 1989. An estimate of numbers and habitat preferences of otters *Lutra lutra* in Shetland, U.K. *Biological Conservation* 49:241–254.
- Lietuvos Raudonoji Knyga, the Red List of Lithuania. Available at <http://www.raudonojiknyga.lt/>.
- Liukko U-M, Henttonen H, Hanski I K, Kauhala K, Kojola I, Kyheröinen E-M. 2010. Nisäkkäät, Mammals. Mammalia. In Rassi P, Hyvärinen E, Juslén A, Mannerkoski I (eds.). Suomen lajien uhanalaisuus – Punainen kirja 2010. Ministry of the Environment & Finnish Environment Institute, Helsinki. P. 311–318.
- Maa- ja metsätalousministeriö, muistio Dnro 1398/13/2012. Maa- ja metsätalousministeriön asetus poikkeusluvalla sallittavasta saukon metsästyksestä metsästysvuonna 2012–2013.
- Mason CF, Macdonald SM. 1986. Otters – ecology and conservation. Cambridge University Press, Cambridge.
- Meel R. 2008. Eesti riikliku keskkonnaseire programmi aruanne. Alamprogramm: 6. Eluslooduse mitmekesisuse ja maastike seire. Allprogramm 6.3.12: Saarmas, Tartu (in Estonian).
- Meinig H, Boye P, Hutterer R. 2009. Rote Liste und Gesamtartenliste der Säugetiere (Mammalia) Deutschlands. Stand Oktober 2008. *Naturschutz und Biologische Vielfalt* 70(1): 115–153. In Bundesamt für Naturschutz 2009. Rote Liste gefährdeter Tiere, Pflanzen und Pilze Deutschlands. Band 1: Wirbeltiere. Bundesamt für Naturschutz.
- Olsson M, Sandegren F. 1991. Rev. Olsson M 1995, Bisther M. 2002, 2005, 2010. *Lutra lutra* utter. Artfaktablad. Artdatabanken. Available at: [http://www.artfakta.se/Artfaktablad/Lutra\\_Lutra\\_100077.pdf](http://www.artfakta.se/Artfaktablad/Lutra_Lutra_100077.pdf)
- Ozolins J. 1999. Eurasian otter *Lutra lutra* (L., 1758) in the freshwater and riparian ecosystems in Latvia. Summary of thesis for doctoral degree in biology, Latvijas Universitate.
- Pertoldi C, Møller-Hansen M, Loeschcke V, Madsen AB, Jacobsen L, and Baagoe H. 2001. Genetic consequences of population decline in the European otter (*Lutra lutra*): an assessment of microsatellite DNA variation in Danish otters from 1883–1993. *Proceedings of the Royal Society of London, Series B.* 268:1775–1781.
- Randi E, Davioli F, Pierpaoli M, Pertoldi C, Madsen AB, Loeschcke V. 2003. Genetic structure in otter (*Lutra lutra*) populations in Europe: implications for conservation. *Animal Conservation* 6:93–100.
- Red book of Nature of the Leningrad region. Vol. 3. Animals. "Mir I Semya" ", Saint-Petersburg. 2002. 480 p. (In Russian) [Красная книга природы Ленинградской области. Том 3. Животные. "Мир и Семья", Санкт-Петербург, 2002, 480 с.]
- Ruiz-Olmo J, Saavedra D, Jiménez J. 2001. Testing surveys and visual and track censuses of Eurasian otters (*Lutra lutra*). *Journal of Zoology (London)* 253:359–369.
- Ruiz-Olmo J, Loy A, Cianfrani C, Yoxon P, Yoxon G, de Silva PK, Roos A, Bisther M, Hajkova P & Zemanova B. 2008. *Lutra lutra*. In: IUCN 2011. IUCN Red List of Threatened Species. Version 2011.2.
- Tjernberg M, Ahlén I, Andersson Å, Andrén H, Eriksson MOG, Nilsson SG, Svensson S. 2010. Däggdjur – Mammals. Mammalia. In Gärdenfors, U. (ed.) Rödlistade arter i Sverige 2010 – The 2010 Red List of Swedish Species. ArtDatabanken, SLU, Uppsala. P. 301–306. Red List categories available also at <http://www.artfakta.se/GetSpecies.aspx?SearchType=Advanced>

**SPECIES INFORMATION SHEET*****Lutra lutra***

- Tumanov IL. 1990. Abundance of otters and minks in catchment areas of the Lakes Ladog, Ilmenj and Pskov-Chuda. In: Game mammals and birds in the basin of Lake Ladog, Kirov, pp 35–45 (in Russian).
- Webb JB. 1975. Food of the otter (*Lutra lutra* L.) on the Somerset Levels. Journal of Zoology (London) 177:486–491.
- Wikman M (ed). 2010. Riistakannat 2010. Riistaseurantojen tulokset. Riista – ja kalatalouden tutkimuslaitos 21/2010, Helsinki (in Finnish).
- Wind P, Pihl S (eds). 2004–2010. The Danish Red List. - The National Environmental Research Institute, Aarhus University [2004]-. <http://redlist.dmu.dk> (updated April 2010). Species information available at <http://bios.au.dk/videnudveksling/til-myndigheder-og-saerligt-interesserede/redlistframe/soegart/>