

**Supplementary 1.** Locations and sample sizes (N) of the studied *Esox lucius* populations (A) along with the map of locations (B).

**A**

Localization	Class	N	Type	Coordinates
Puck Bay	2010-2014	213	brackish	52°23'N 21°01E
Reda river (estuary, Rewa town)	2012	11	brackish	54°64'N 18°46E
Motława river (estuary)	2009-2014	171	brackish	54°35'N 18°67E
Vistula Lagoon (Krynica Morska town)	2010	12	brackish	54°38'N 19°44E
Vistula Lagoon (Frombork town)	2011	12		54°36'N 19°68E
Szczecin Lagoon (Polish part)	2012	5	brackish	53°85'N 14°41E
Szczecin Lagoon (German part)	2013	14		53°45'N 14°04E
Bukowo lake	2012	30	brackish	54°36'N 16°31E
Jamno lake	2012	27	brackish	54°28'N 16°15E
Rega river (estuary)	2012	11	brackish	54°14'N 15°28E
Zelwa lake	2009	19	freshwater	54°02'N 23°42E
Osiek lake (Dobiegniew town)	2009	18	freshwater	52°95'N 15°68E
Jaroszewskie lake (Sieraków town)	2009	15	freshwater	52°62'N 16°09E
Drawsko lake (Drawski Natural Reserve)	2009	18	freshwater	53°59'N 16°18E
Odra river (Polish part)	2013	11	freshwater	51°06'N 17°01E
Odra river (Germany part)	2013	18	freshwater	52°41'N 14°25E/ 52°16'N 14°35E
Wisłoka river	2013	24	freshwater	50°17'N 21°26E/ 50°03'N 21°24E

Elbe river	2013	16	freshwater	53°04'N 11°27E/ 53°22'N 10°32E/ 53°23'N 10°13E/ 53°01'N 11°27E/ 51°51'N 12°27E
Borowe lake (Małkinia Mała town)	2011	23	freshwater	52°59'N 21°46E

**B**

