Supplementary material

Fig. S1: Measurements of pond water temperature from the Arctic (A, C, E and G) and the Boreal (B, D, F and H) tadpole region of origin. Water temperature was measured with data loggers (stowaway Tidbit underwater data loggers, Onset HOBO data loggers, Borne, USA) during summer 2012. In each pond of origin, where *Rana temporatia* eggs were collected for this and a previous study (Liess et al. 2013), three data loggers were placed in spring 2012. One data logger was placed as close as possible to deepest part of the pond, on data logger was placed at the shallow location (ca. 50 cm depth) where the eggs were found and one data logger was placed at ca 1 m depth. The green line represents the mean daily temperature measured by the shallow data logger, the blue line represents the mean daily temperature measured by the deep data logger and the back line represents the mean daily pond temperature calculated from all measured values (24 measurements per day per data logger x 3 data loggers per pond). Water temperature is plotted on the y-axis and date is plotted on the x-axis. The black square in each data plot surrounds the likely time period during which tadpoles live in the ponds. The temperature data show that even during the particularly cold June of 2012 (mean June temperature one °C colder than average in the studied areas, SMHI 2015), all Boreal ponds and half of the Arctic ponds reached 18°C (dotted line) in shallow water at some point during tadpole development, whereas only the most shallow Boreal pond (H) reached a shallow water temperature over 23°C.