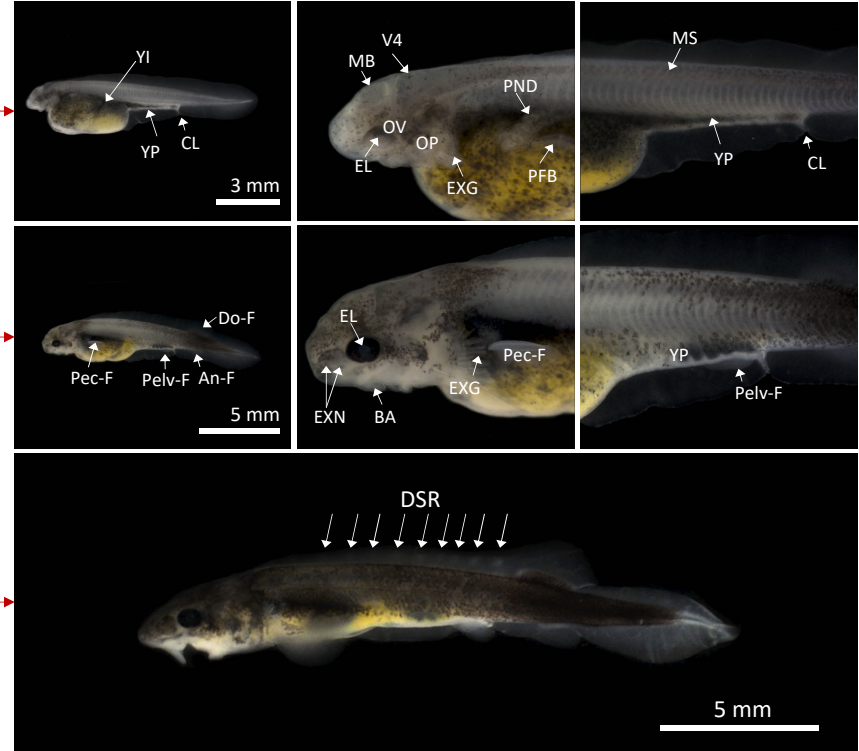


Additional file 1: Suppl. Fig. S1. Information on prelarval development of Russian sturgeon, *Acipenser gueldenstaedtii*, used in this study.

BW (mg)	TL (mm)	Age	Morphological developments
14.5±0.7	10.2±0.2	0 DPH Day 0	Large yolk; loop of pronephric duct; unpigmented eyes; small budding of pectoral fin rudiment on the surface of yolk sac
14.9±0.8	11.3±0.2	1 DPH Day 1	Melanin pigmentation observable in eyes
15.8±1.0	12.0±0.4	2 DPH Day 2	Onset of yolk invagination; pigmented eye lens distinct; pectoral fin bud observable
17.4±1.2	13.2±0.3	3 DPH Day 3	Pronounced melanin pigmentations in head and caudal regions; external gills evident; complete pigmentation in eyes; dorsal fin fold developed
19.5±1.3	14.0±0.6	4 DPH Day 4	Dorsal, pelvic and anal fins developed; pectoral fins perpendicular to the horizontal body axis; darkly pigmented tail
23.7±1.5	15.3±0.5	5 DPH Day 5	Fins more developed and barbels more elongated
26.2±3.1	16.4±0.4	6 DPH Day 6	Pigmentation significantly pronounced in head and caudal trunk
30.8±2.2	18.0±0.5	7 DPH Day 7	Yolks almost absorbed and yolk plug moved almost to anal region; whole body darkly pigmented except dorsal and abdominal areas
34.2±2.0	18.9±0.4	8 DPH Day 8	Development of digestive internal organs observed; dark pigmentation over almost whole body area; ready to expel yolk plug; dorsal scute rudiments seen
37.9±1.7	19.5±0.5	9 DPH Day 9	First feeding
40.0±2.5	20.5±0.4	10 DPH	Dorsal scute rudiments more evident

Daylight conditions (450 lux)
Dim light conditions (10 lux)
Dark conditions (< 1 lux)



Abbreviations: anal fin (An-F), barbel (BA), cloaca (CL), dorsal fin (Do-F), dorsal scute array (DSR), external gill (EXG), external nares (EXN), eye lens (EL), fourth ventricle (V4), mid brain (MB), muscle segment (MS), operculum (OP), optic vesicle (OV), pectoral fin (Pec-F), pectoral fin bud (PFB), pelvic fin (Pelv-F), pronephric duct (PND), yolk invagination (YI) and yolk plug (YP).