



Supplementary

Ancient Sturgeons Possess Effective DNA Repair Mechanisms: Influence of Model Genotoxicants on Embryo Development of Sterlet, *Acipenser Ruthenus*

Ievgeniia Gazo ^{1,*}, Roman Franěk ¹, Radek Šindelka ², Ievgen Lebeda ¹, Sahana Shivaramu ¹, Martin Pšenička ¹ and Christoph Steinbach ¹

¹ South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses, Faculty of Fisheries and Protection of Waters, University of South Bohemia in Ceske Budejovice, Zátíší 728/II, 389 25 Vodňany, Czech Republic; franek@frov.jcu.cz (R.F.); ilebeda@frov.jcu.cz (I.L.); sahana.s92@gmail.com (S.S.); psenicka@frov.jcu.cz (M.P.); steinbach@frov.jcu.cz (C.S.)

² Laboratory of Gene Expression, Institute of Biotechnology—Biocev, Academy of Science of the Czech Republic, 252 50 Vestec, Czech Republic; radek.sindelka@ibt.cas.cz

* Correspondence: gazo@frov.jcu.cz; Tel.: +420 38777 4607

Citation: Gazo, I.; Franěk, R.; Šindelka R.; Lebeda, I.; Shivaramu, S.; Pšenička M.; Steinbach, C. Ancient Sturgeons Possess Effective DNA Repair Mechanisms: Influence of Model Genotoxicants on Embryo Development of Sterlet, *Acipenser Ruthenus*. *Int. J. Mol. Sci.* **2021**, *22*, 6. <https://doi.org/10.3390/ijms22010006>

Received: 1 December 2020

Accepted: 19 December 2020

Published: 22 December 2020

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2020 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

Table S1. Sterlet embryo viability and hatching rate following exposure to different concentrations of BaP (0.5, 1, 5 μ M), etoposide (1, 5, 10, 20 μ M), and CPT (5, 10, 50, 100 nM).

Treatment	Live, %	Hatched, %
Control	91	76
BaP 0.5 μ M	94	73
BaP 1 μ M	84	59
BaP 5 μ M	68	58
Etop 1 μ M	84	77
Etop 5 μ M	89	79
Etop 10 μ M	82	71
Etop 20 μ M	88	75
CPT 5nM	88	71
CPT 10nM	75	21
CPT 50nM	0	0
CPT 100nM	0	0

Embryos were exposed to BaP and etoposide from 2 hpf till 8 dpf; and to CPT from 24 till 48 hpf. All results are presented at 8 dpf. Results represent mean of two independent experiments, number of embryos N = 50.

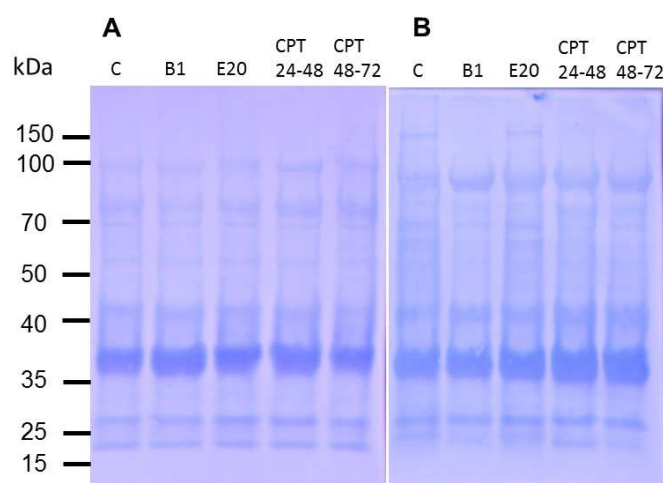


Figure S1. Total protein profile of sterlet embryos on (A) 3 dpf; (B) 8 dpf. Proteins were stained with 0.1% (w/v) Coomassie Brilliant Blue R-250 in isopropanol. “C” —control; “CPT 24–48” —10 nM CPT at 24–48 hpf; “CPT 48–72” —10 nM CPT at 48–72 hpf; “B1” —1 μM BaP; “E20” —20 μM etopo-side. Molecular weight marker (kDa) is on the left.