Supplementary data for the article:

Aleksic, I.; Ristivojevic, P.; Pavic, A.; Radojević, I.; Čomić, L. R.; Vasiljevic, B.; Opsenica, D.; Milojković-Opsenica, D.; Senerovic, L. Anti-Quorum Sensing Activity, Toxicity in Zebrafish (Danio Rerio) Embryos and Phytochemical Characterization of Trapa Natans Leaf Extracts. *Journal of Ethnopharmacology* **2018**, *222*, 148–158. https://doi.org/10.1016/j.jep.2018.05.005

Supplementary data

Anti-quorum sensing activity, toxicity in zebrafish (Danio rerio) embryos and phytochemical characterization of *Trapa natans* leaf extracts

Ivana Aleksic[a], Petar Ristivojevic[b], Aleksandar Pavic[a], Ivana Radojevic[c], Ljiljana R. Čomić[c], Branka Vasiljevic[a], Dejan Opsenica[d], Dusanka Milojkovic-Opsenica[e*] and Lidija Senerovic[a*]

[a]Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Vojvode Stepe 444a, P.O. Box 23, 11010 Belgrade, Serbia

[b]Faculty of Chemistry, University of Belgrade, Studentski trg 12-16, P.O. Box 51, 11158, Belgrade, Serbia

[c]Department of Biology and Ecology, Faculty of Science, University of Kragujevac, Radoja Domanovica 12, 34000 Kragujevac, Republic of Serbia

[d]Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Njegoševa 12, P.O. Box 473, 11000, Belgrade, Serbia

*Corresponding authors:

Lidija Senerovic, email: seneroviclidija@imgge.bg.ac.rs

Dusanka Milojkovic-Opsenica, email: dusankam@chem.bg.ac.rs

Table 1S - Lethal and teratogenic effects observed in zebrafish (*Danio rerio*) embryos at different hours post fertilization (hpf).

Category	Developmental endpoints	Exposure time (hpf)			
		24	48	72	96
Lethal effect	Egg coagulation[a]	●	●	●	●
	No somite formation	●	●	●	●
	Tail not detached	●	●	●	●
	No heart-beat		●	●	●
Teratogenic effect	Malformation of head	●	●	●	●
	Malformation of eyes[b]	●	●	●	●
	Malformation of sacculi/otoliths[c]	●	●	●	●
	Malformation of chorda	●	●	●	●
	Malformation of tail[d]	●	●	●	●
	Scoliosis	●	●	●	●
	Heart beat frequency		●	●	●
	Blood circulation		●	●	●
	Pericardial edema	●	●	●	●
	Yolk edema	●	●	●	●
	Yolk deformation	●	●	●	●
	Growth retardation[e]	●	●	●	●

[a] No clear organs structure are recognized

[b] Malformation of eyes was recorded for the retardation in eye development and abnormality in shape and size.

[c] Presence of no, one or more than two otoliths per sacculus, as well as reduction and enlargement of otoliths and/or sacculi (otic vesicles).

[d] Tail malformation was recorded when the tail was bent, twisted or shorter than to control embryos as assessed by optical comparison.

[e] Growth retardation was recorded by comparing with the control embryos in development or size (before hatching, at 24 hpf and 48 hpf) or in a body length (after hatching, at and onwards 72 hpf) using by optical comparison using a inverted microscope (CKX41; Olympus, Tokyo, Japan).

Figure 1S. Base peak chromatogram of *T. natans* methanolic leaves extract.

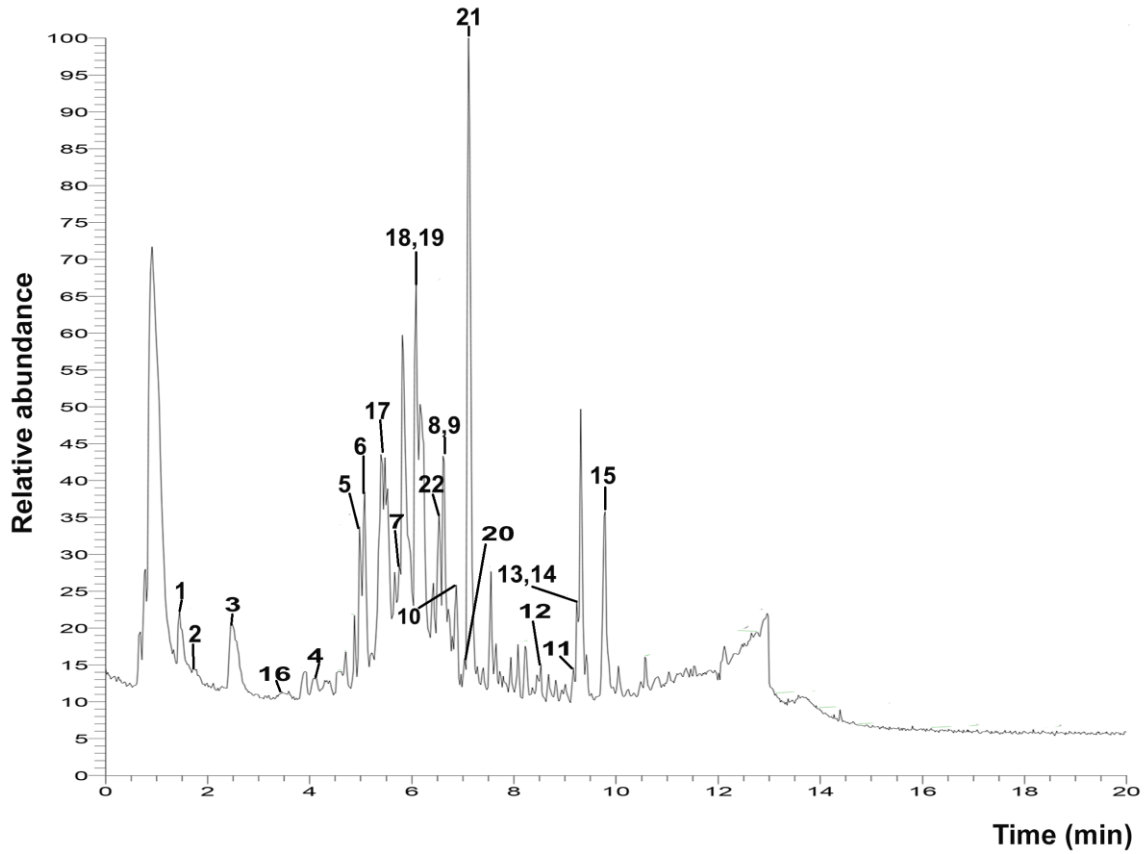

Table 2S. Phenolic compounds quantified in the analyzed *T. natans* extracts, correlation coefficient, limit of detection (LOD), limit of quantification (LOQ). The mass spectrometer was operated using UHPLC-LTQ OrbiTtrap MS analysis in negative ionization mode, with collision energy 30 eV.

Peak [a]	Compound	TnA	TnM	R^2	LOD (mg/L)	LOQ (mg/L)
		mg/L				
3	Gallic acid	45.33	30.31	0.9945	0.08	0.27
4	Protocatechuic acid	1.91	0.96	0.9969	0.09	0.30
7	Caffeic acid	1.66	0.88	0.9988	0.07	0.22
8	*p*-Coumaric acid	2.16	1.10	0.9956	0.10	0.34
9	Ellagic_acid	482.93	258.75	0.9938	0.11	0.37
11	Ferulic_acid	22.84	49.01	0.9987	0.08	0.27
14	Naringenin	8.34	3.52	0.9939	0.14	0.47
19	Rutin	2.02	2.52	0.9907	0.15	0.51
20	Kaempferol 3-*O*-glucoside (Astragalin)	2.01	1.86	0.9989	0.05	0.17
22	Quercetin 3-*O*-galactoside (Hyperoside)	36.06	41.28	0.9950	0.11	0.37

[a] Peak numbers correspond to Fig. 1S. Compounds were quantified by the external standard quantification procedure.