



SUPPLEMENTARY MATERIAL TO

**Organic geochemical approach in the identification of oil-type pollutants in water and sediment of the River Ibar**

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SAMPLING

In this study, the samples of water and sediment of the River Ibar were analyzed. Samples were taken in the vicinity of Kosovska Mitrovica (Zubin Potok (ZP) which is upstream from the town, and 6 km downstream from the dam and Lake Gazivoda, and Veliko Rudare (VR) which is upstream from the town) and Kraljevo (Konaravo, upstream from the town and Ratina, downstream from the town). A total of 8 samples (4 water and 4 sediment samples) were analyzed. Sampling locations are shown in Fig. S-1.

Ibar flows in the southern and central part of Serbia. It is the largest tributary of the Western Morava and belongs to the Black Sea watershed. Its source is a karstic spring at the Hajle Mt. in eastern Montenegro, 10 km upstream from Rožaje. The confluence with West Morava River is at 272 km, 4.5 km east of Kraljevo. The watershed of the River Ibar covers an area of 8,059 km<sup>2</sup>.<sup>18</sup>

Water samples were taken using a telescope sampling pole, at distance about 1.5 to 2.0 m from the river bank. Samples were immediately transferred into glass bottles, previously prepared (washed) for this purpose. Surface sediment samples were also taken using a telescope sampling pole, but along the river bank, and transferred into plastic bottles, specifically prepared for this purpose.

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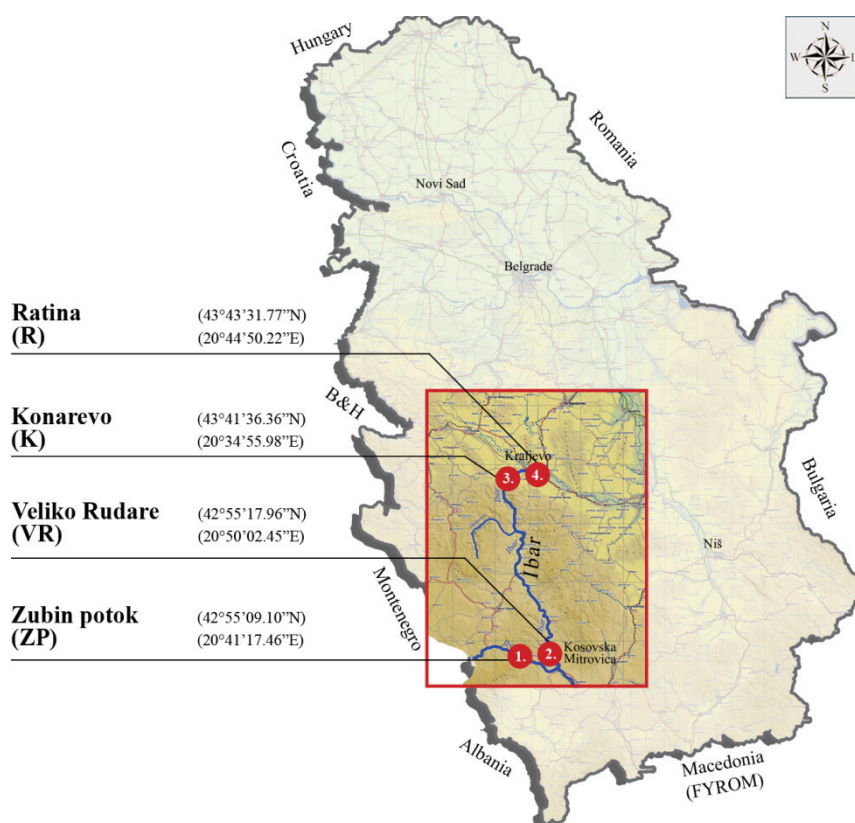


Fig. S-1. Watershed of River Ibar with sampling locations.

TABLE S-I. Peak identification from Figure 3 (*m/z* 217)

Peak	Compound
1	C <sub>27</sub> 13β(H)17α(H)20(S)-diasterane
2	C <sub>27</sub> 13β(H)17α(H)20(R)-diasterane
3	C <sub>27</sub> 13α(H)17β(H)20(S)-diasterane
4	C <sub>27</sub> 13α(H)17β(H)20(R)-diasterane
5a	C <sub>28</sub> 13β(H)17α(H)20(S)24(S)-diasterane
5b	C <sub>28</sub> 13β(H)17α(H)20(S)24(R)-diasterane
6a	C <sub>28</sub> 13β(H)17α(H)20(R)24(S)-diasterane
6b	C <sub>28</sub> 13β(H)17α(H)20(R)24(R)-diasterane
7	C <sub>28</sub> 13α(H)17β(H)20(S)-diasterane + C <sub>27</sub> 14α(H)17α(H)20(S)-sterane
8	C <sub>29</sub> 13β(H)17α(H)20(S)-diasterane + C <sub>27</sub> 14β(H)17β(H)20(R)-sterane
9	C <sub>28</sub> 13α(H)17β(H)20(R)-diasterane + C <sub>27</sub> 14β(H)17β(H)20(S)-sterane
10	C <sub>27</sub> 14α(H)17α(H)20(R)-sterane
11	C <sub>29</sub> 13β(H)17α(H)20(R)-diasterane
12	C <sub>29</sub> 13α(H)17β(H)20(S)-diasterane
13	C <sub>28</sub> 14α(H)17α(H)20(S)-sterane
14	C <sub>29</sub> 13α(H)17β(H)20(R)-diasterane + C <sub>28</sub> 14β(H)17β(H)20(R)-sterane

TABLE S-I. Continued

Peak	Compound
15	C <sub>28</sub> 14β(H)17β(H)20(S)-sterane
16	C <sub>28</sub> 14α(H)17α(H)20(R)-sterane
17	C <sub>29</sub> 14α(H)17α(H)20(S)-sterane
18	C <sub>29</sub> 14β(H)17β(H)20(R)-sterane
19	C <sub>29</sub> 14β(H)17β(H)20(S)-sterane
20	C <sub>29</sub> 14α(H)17α(H)20(R)-sterane

TABLE S-II. Peak identification from Figure 4 (*m/z* 191)

Peak	Compound
1	C <sub>27</sub> 18α(H),22,29,30-trisnorhopane, Ts
2	C <sub>27</sub> 17α(H),22,29,30-trisnorhopane, Tm
3	C <sub>29</sub> 17α(H)21β(H)-hopane
4	C <sub>29</sub> 17β(H)21α(H)-moretane
5	C <sub>30</sub> 17α(H)21β(H)-hopane
6	C <sub>30</sub> 17β(H)21α(H)-moretane
7	C <sub>31</sub> 17α(H)21β(H)22(S)-hopane
8	C <sub>31</sub> 17α(H)21β(H)22(R)-hopane
9	C <sub>32</sub> 17α(H)21β(H)22(S)-hopane
10	C <sub>32</sub> 17α(H)21β(H)22(R)-hopane
11	C <sub>33</sub> 17α(H)21β(H)22(S)-hopane
12	C <sub>33</sub> 17α(H)21β(H)22(R)-hopane
13	C <sub>34</sub> 17α(H)21β(H)22(S)-hopane
14	C <sub>34</sub> 17α(H)21β(H)22(R)-hopane
15	C <sub>35</sub> 17α(H)21β(H)22(S)-hopane
16	C <sub>35</sub> 17α(H)21β(H)22(R)-hopane