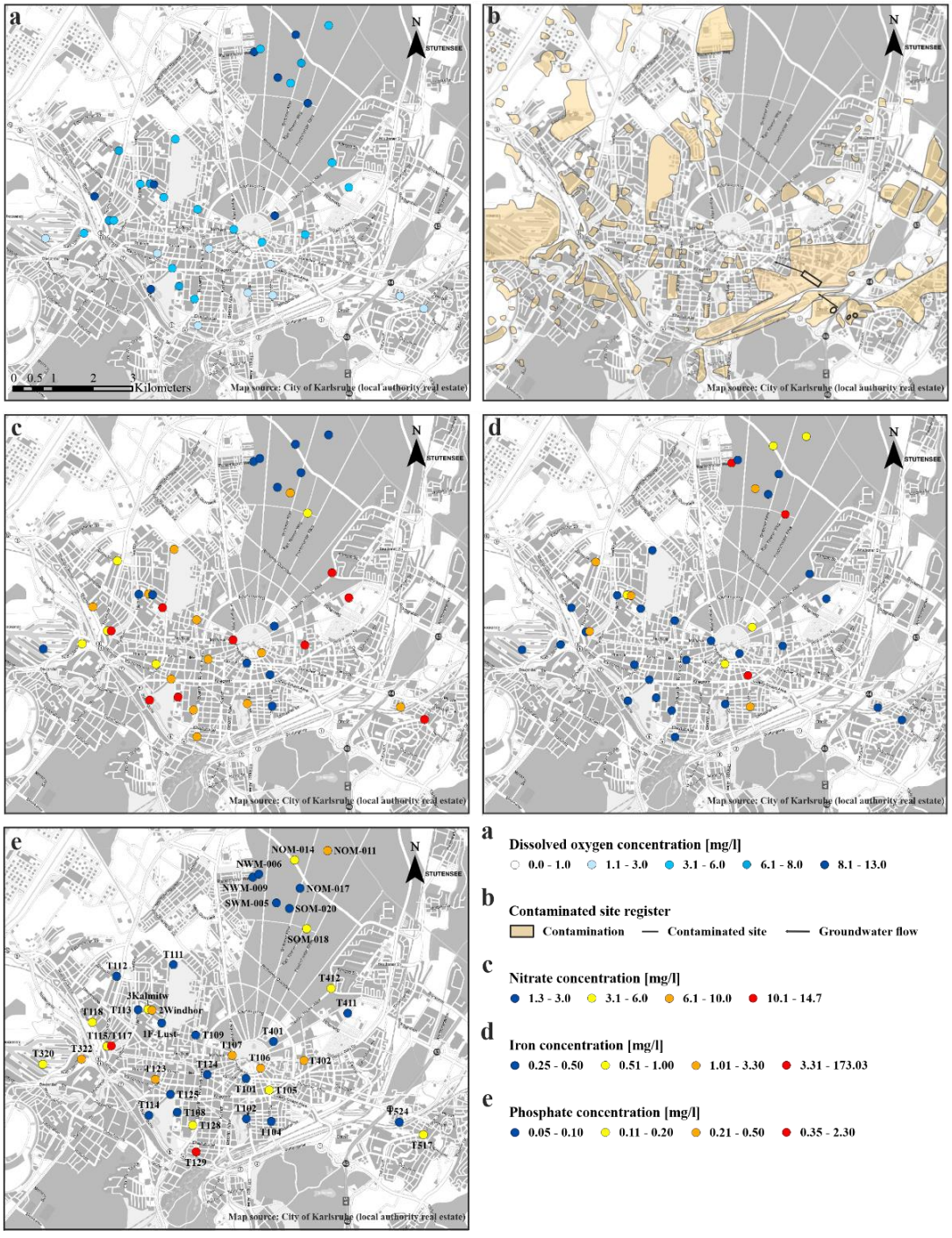


**Figure S1: Overview map of Karlsruhe: (a) the average content of dissolved oxygen of the multiple measurements [mg/l]; (b) contaminated sites of the soil protection and contaminated site register (Bodenschutz- und Altlastenkataster) of Karlsruhe (modified after Stadt Karlsruhe, 2006; Kühlers et al., 2012; Wickert et al., 2006); (c) average nitrate concentration [mg/l] of the repeated measurements; (d) iron concentration [mg/l] of the repeated measurements and (e) the phosphate concentration [mg/l] of the repeated measurements at the bottom of the measurement wells.**

**Groundwater Fauna Index (GFI)**

The Groundwater-Fauna-Index (GFI), introduced by Hahn (2006), quantifies the ecological relevant conditions in the groundwater as a result of hydrological exchange between surface and groundwater. It incorporates ecologically important groundwater parameters such as relative amount of detritus, variation of groundwater temperature and concentration of dissolved oxygen (Hahn, 2006) and is calculated by using Equation 1:

$$\textbf{GW Fauna Index} = \sqrt{\boldsymbol{Dissolved\ Oxygen}\left(\frac{\boldsymbol{mg}}{\boldsymbol{l}}\right)} \times \sqrt{\boldsymbol{Relative\ Amount\ of\ Detritus}} \times \boldsymbol{Standard\ deviation\ Temperature} \quad (\mathbf{1})$$

The determined average GFI of all sampled wells is 6.0 ± 2.8 with a total variation between 0 and 14 and a heterogeneous distribution of the GFI-values. High GFI values (> 10, Type III), indicating hydrological exchange with the surface (Hahn, 2006), were only found in three wells, which share a high standard deviation of GWT (2.6 to 3.5 °C), higher dissolved oxygen (5.5 to 5.8 mg/l) as well as nitrate concentrations (7.7 up to 12 mg/l). These specific well locations have mainly no or minor sealed surfaces. Overall, 82 % of the measurement wells showed meso-alimonic conditions (GFI > 2-10, Type II) and therefore indicate a medium level of surface influence, at diverse urban and rural locations. Only four wells in this study were well insulated from surface influences (GFI < 2), with three wells located in densely built-up surroundings with sealed surfaces. Moreover, the average GFI in the forest area is 4.5 ± 1.9 and in the urban area 6.2 ± 2.7.

**Shannon diversity index**

The Shannon-Index, introduced by Shannon and Weaver (1949) is an established standard method to quantify the ecological diversity of e.g. bacterial or faunistic communities. The index describes the diversity by including the number of species and the relative frequency of individuals. The sampled wells in the forest area show the highest balance (median EH = 0.47) and Shannon diversity index (median HS = 0.74). The maximum diversity (median $H_{max}$ = 1.58) is the same in both the forest and the urban area. The balance (median EH = 0.42) and Shannon diversity index (median HS = 0.52) are only a little bit lower in the urban area. These results are comparable with the study of Brielmann et al. (2009), where the Shannon diversity index of an anthropogenically influenced groundwater of an aquifer downstream of an industrial facility varies between 0.20 and 1.45. Nevertheless, no clear distribution pattern according to faunal diversity is recognizable. Thus, the Shannon diversity index was not considered further.

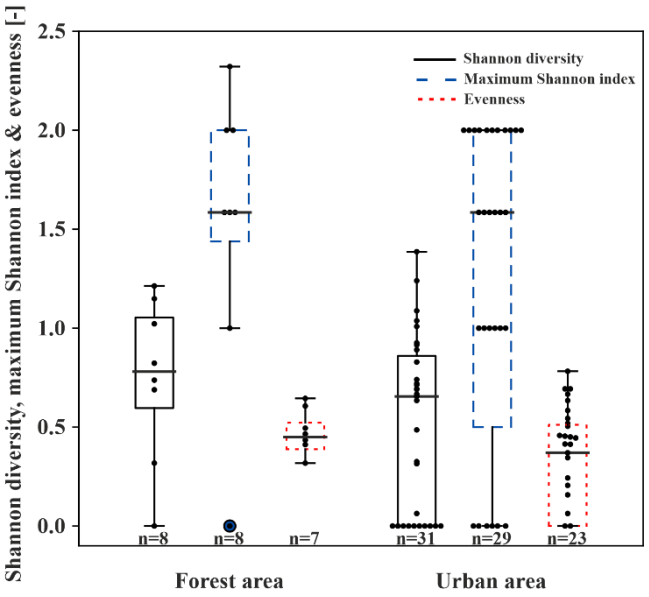


**Figure S2. Boxplots of the Shannon diversity index, maximum Shannon index and evenness, divided in forest and urban area (n = number of wells, or number of wells at which the evaluation is applicable).**

## Urban impacts on groundwater quality

Urban impacts on groundwater systems can be manifold, such as increasing temperatures (urban heat islands (Menberg et al., 2013)), contaminants (Kuroda and Fukushi, 2008), changes in the precipitation discharge due to sealing, falling water levels due to groundwater withdrawal (Foster, 1990). In our study we intend to provide a first impression of the situation in Karlsruhe and therefore focus on the standard parameters. A first overview is given by the LUBW continuous monitoring program of groundwater wells (Landesanstalt für Umwelt Messungen und Naturschutz Baden-Württemberg, 2020), which provides profound groundwater analysis in Karlsruhe. Some of the considered measurement wells are close to the measurement wells of this study. Assessing the evaluation period of this study (2011-2014), most of the wells of the monitoring program show values within the range of the local background or below the thresholds of the drinking water ordinance of Germany and therefore no contamination.

One exception is a measurement well in the Kapellen-Street (next to T105), which shows higher ammonium (average: 0.55 mg/l, threshold drinking water ordinance: 0.5 mg/l), iron (5.1 mg/l, threshold value of the German drinking water ordinance: 0.2 mg/l) and manganese concentrations (0.55 mg/l, threshold drinking water ordinance: 0.05 mg/l). Moreover, this well has a noticeable concentration of arsenic (8.7 µg/l, threshold drinking water ordinance: 10 µg/l) and of the herbizide CGA 369873 (0.1 µg/l, threshold: 0.1 µg/l). This well is at the margin of one of the largest contaminated site in Karlsruhe, the former gas plant.

Three other wells, which contain contaminants are in the Kaiserallee, Mathy-Street (next to T124) and near the municipal hospital. They showed noticeable concentrations of volatile hydrocarbons of up to 13 µg/l during the evaluation period (in detail at the hospital: 3-6 µg/l; Kaiserallee: 5-8 µg/l; Mathy Street: about 3 µg/l). In comparison, the German threshold value of the drinking water ordinance is 20 µg/l.

The groundwater of one measurement well in the Hardtwald (next to SWM-005/SOM-020) has a different chemical composition than the wells in the urban area. It shows lower concentrations of boron (30-45 µg/l, compared to the other wells: 50-98 µg/l), calcium (100-110 mg/l, compared to the other wells of up to 150 mg/l), chloride (25.5 mg/l in 2014 compared to the other wells: > 50 mg/l), potassium (3.2 mg/l) and sodium (11.3 mg/l). Furthermore, the content of dissolved oxygen is higher than in the wells of the urban area (average with 4.8 mg/l).

This overview indicates that beside one larger and two smaller contaminations, the groundwater beneath Karlsruhe contains only minor pollution. Groundwater fauna can usually cope well with short-term changes of chemical-physical parameters (Griebler et al., 2016). Previous studies showed that some species can even benefit from pollutants (Matzke, 2006; Zuurbier et al., 2013). Thus, the main documented impacts on groundwater quality in the study area are related to groundwater temperature, oxygen and nitrate concentration.

**Table S1: Well locations, information, sampled properties and result of the evaluation (GWT=groundwater temperature, *sampling 2011-2012: 6 times, † sampling 2014: 3 times)**

| Measuring point | Location | Area classification | Depth [m] | Average GWT [°C] | SD GWT [-] | Relative amount of detritus [-] | Average dissolved oxygen [mg/l] | Average GFI [-] | Amount crustaceans (acc. to Griebler et al. (2014)) [%] | Amount oligochaetes (acc. to Griebler et al. (2014)) [%] | Total amount of individuals [-] | Numbers of taxa [-] | Ecological condition (acc. to Griebler et al. (2014)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T101 | Lammstr. No.7 | * Urban area | 39.0 | 14.4 | 0.05 | 3 | 0.97 | 0 | 0 | 0 | 0 | 0 | Faunistic evaluation not possible |
| T102 | Tulla Bad | * Urban area | 10.0 | 14.0 | 2.99 | 2 | 1.45 | 5 | 100 | 0 | 4 | 2 | Natural |
| T104 | Arbeitsamt - Rankestr. | * Urban area | 15.8 | 12.5 | 1.28 | 3 | 1.07 | 2 | 0 | 0 | 0 | 0 | Faunistic evaluation not possible |
| T105 | Fritz-Erler-Str. No.21 | * Urban area | 9.3 | 14.4 | 3.29 | 3 | 1.29 | 6 | 0 | 100 | 1 | 1 | Faunistic evaluation not possible |
| T106 | Schloßplatz / Schloßbezirk | * Urban area | 11.0 | 14.2 | 2.60 | 3 | 4.02 | 9 | 86 | 14 | 7 | 3 | Natural |
| T123 | Sophienstr. - Grillparzerstr. | * Urban area | 14.0 | 12.8 | 1.65 | 1 | 2.18 | 2 | 0 | 100 | 3 | 2 | Affected |
| T124 | Kaiserplatz | * Urban area | 13.0 | 14.9 | 1.95 | 3 | 1.97 | 5 | 0 | 0 | 2 | 1 | Affected |
| T125 | Kriegsstr. No.141 | * Urban area | 11.8 | 15.0 | 2.32 | 1 | 3.64 | 4 | 0 | 100 | 103 | 3 | Affected |
| T128 | Südendstr. - Brauerstr. | * Urban area | 9.5 | 13.2 | 3.21 | 2 | 5.50 | 11 | 0 | 100 | 13 | 2 | Affected |
| T129 | Schule Beiertheim | * Urban area | 8.5 | 12.2 | 3.67 | 1 | 2.31 | 6 | 91 | 9 | 124 | 4 | Natural |
| T320 | Südbeckenstr. No.16 | * Urban area | 9.0 | 12.6 | 3.43 | 1 | 2.62 | 6 | 0 | 100 | 252 | 1 | Affected |
| T322 | Rheinhafenbad | * Urban area | 10.0 | 15.9 | 2.99 | 2 | 3.45 | 8 | 0 | 100 | 6 | 2 | Affected |
| T402 | Am Fasanengarten - Parkstr. | * Urban area | 9.0 | 12.4 | 3.43 | 2 | 3.68 | 9 | 50 | 50 | 4 | 4 | Affected |
| T411 | Gewann Blösse | * Urban area | 10.9 | 11.3 | 2.64 | 3 | 5.74 | 11 | 0 | 100 | 34 | 2 | Affected |
| T412 | Theodor- Heuss - Allee | * Urban area | 10.0 | 11.4 | 2.99 | 1 | 4.47 | 6 | 100 | 0 | 6 | 4 | Natural |
| T517 | Auer Str. - Reichenbachstr. | * Urban area | 9.0 | 12.8 | 3.43 | 2 | 2.84 | 8 | 100 | 0 | 5 | 1 | Natural |
| T524 | Dornwaldstr. | * Urban area | 9.0 | 11.5 | 3.43 | 2 | 1.77 | 6 | 99 | 1 | 275 | 2 | Natural |
| T401 | Area next to the Wildpark-Stadion | † Urban area | 11.0 | 14.2 | 2.60 | 2 | 8.90 | 10 | 0 | 100 | 8 | 1 | Affected |
| T109 | Erzbergerstr. | † Urban area | 13.7 | 14.1 | 1.76 | 1 | 4.86 | 4 | 92 | 8 | 38 | 4 | Natural |
| T108 | Edgar-von-Gierke-Str. - Siegfried-Kühn-Str. | † Urban area | 12.0 | 14.9 | 2.26 | 2 | 6.12 | 8 | 79 | 21 | 25 | 4 | Affected |
| T114 | Allotment garden at the Alb | † Urban area | 12.8 | 15.4 | 2.01 | 1 | 8.25 | 6 | 13 | 88 | 171 | 4 | Affected |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T115 | Sonnenstr. – Zietenstr. | † | Urban area | 13.5 | 14.8 | 1.81 | 1 | 4.83 | 4 | 89 | 11 | 23 | 4 | Natural |
| T117 | Sonnenstr. – Zietenstr. | † | Urban area | 13.0 | 17.0 | 1.95 | 3 | 6.24 | 8 | 92 | 8 | 76 | 5 | Natural |
| T118 | Schoemperlenstr. | † | Urban area | 13.7 | 16.1 | 1.76 | 1 | 8.45 | 6 | 38 | 63 | 11 | 4 | Affected |
| T112 | Wattstr. – Annweilerstr. | † | Urban area | 12.0 | 14.5 | 2.26 | 2 | 6.87 | 8 | 100 | 0 | 204 | 4 | Natural |
| T111 | Field near Kaiserslauterner-Str. | † | Urban area | 8.9 | 13.4 | 3.48 | 3 | 5.75 | 14 | 77 | 23 | 96 | 4 | Affected |
| T113 | Hertzstr. – St. Barbara-Weg | † | Urban area | 11.0 | 17.5 | 2.60 | 1 | 3.35 | 5 | 0 | 100 | 1 | 1 | Affected |
| 3Kalmitw | Kalmitweg No.3 | † | Urban area | 15.5 | 15.3 | 1.34 | 1 | 6.44 | 3 | 77 | 23 | 13 | 3 | Affected |
| 2Windhor | Wilhelm-Windhorststr. - Schänzle | † | Urban area | 15.2 | 15.8 | 1.34 | 2 | 8.64 | 6 | 20 | 80 | 353 | 4 | Affected |
| 1F-Lust- | Franz-Lust-Str. – Kußmaulstr. | † | Urban area | 15.2 | 17.3 | 1.34 | 2 | 5.95 | 5 | 65 | 35 | 630 | 3 | Affected |
| T107 | Molkestr. – Willy-Brandt-Allee | † | Urban area | 10.1 | 16.2 | 2.95 | 1 | 4.90 | 7 | 66 | 34 | 130 | 3 | Affected |
| NOM-011 | | † | Forest area | 14.9 | 10.7 | 1.47 | 1 | 3.42 | 3 | 100 | 0 | 15 | 1 | Natural |
| NOM-017 | | † | Forest area | 15.0 | 10.9 | 1.45 | 3 | 7.20 | 7 | 97 | 3 | 506 | 6 | Natural |
| SOM-020 | | † | Forest area | 15.0 | 10.7 | 1.45 | 1 | 5.81 | 3 | 50 | 50 | 9 | 4 | Affected |
| SOM-018 | | † | Forest area | 27.0 | 10.3 | 0.26 | 3 | 12.75 | 2 | 90 | 10 | 31 | 2 | Natural |
| SWM-005 | Hardtwald | † | Forest area | 15.5 | 10.5 | 1.34 | 2 | 8.72 | 6 | 26 | 74 | 358 | 3 | Affected |
| NWM-009 | | † | Forest area | 15.0 | 10.8 | 1.45 | 2 | 10.69 | 7 | 43 | 57 | 90 | 4 | Affected |
| NWM-006 | | † | Forest area | 14.8 | 10.7 | 1.49 | 1 | 5.00 | 3 | 86 | 14 | 16 | 3 | Natural |
| NOM-014 | | † | Forest area | 15.0 | 10.5 | 1.45 | 1 | 9.92 | 5 | 67 | 33 | 23 | 3 | Affected |

**Table S2: Taxa-site matrix of the invertebrate fauna of each water gauge.**

| | Official designation of the water gauges | T101 | T102 | T104 | T105 | T106 | T123 | T124 | T125 | T128 | T129 | T320 | T322 | T402 | T411 | T412 | T517 | T524 | Number of individuals | Percentage | T401 | T109 | T108 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Crustacea* | *Amphipoda* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 6 | 0 |
| | *Cyclopoida* | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 76 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 87 | 10 | 0 | 27 | 14 |
| | *Harpacticoida* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | *Parastenocaris* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | *Bathynelleacea* | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 272 | 274 | 33 | 0 | 0 | 1 |
| | *Nauplia* | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| | Amount *Crustacea* | 0 | 2 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 77 | 0 | 0 | 1 | 0 | 3 | 5 | 272 | 366 | 44 | 0 | 33 | 15 |
| | Amount *Crustacea* % | 0 | 50 | 0 | 0 | 86 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 25 | 0 | 50 | 100 | 99 | | | 0 | 87 | 60 |
| | Amount *Amphipoda* % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33.3 | 0.0 | 0.0 | | | 0.0 | 15.8 | 0.0 |
| | Amount *Cyclopoida* % | 0.0 | 0.0 | 0.0 | 0.0 | 71.4 | 0.0 | 0.0 | 0.0 | 0.0 | 61.3 | 0.0 | 0.0 | 25.0 | 0.0 | 0.0 | 100.0 | 0.0 | | | 0.0 | 71.1 | 56.0 |
| | Amount *Harpacticoida* % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 |
| | Amount *Parastenocaris* % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.7 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 |
| | Amount *Bathynellacea* % | 0.0 | 50.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 98.9 | | | 0.0 | 0.0 | 4.0 |
| | Amount *Nauplia* % | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 |
| | *Nematoda* | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 65 | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 76 | 9 | 0 | 2 | 6 |
| | *Oligochaeta* | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 37 | 8 | 8 | 252 | 3 | 1 | 33 | 0 | 0 | 3 | 349 | 42 | 8 | 3 | 4 |
| | *Acari* | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| | *Mikturbellaria* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 39 | 0 | 3 | 0 | 1 | 2 | 0 | 0 | 46 | 5 | 0 | 0 | 0 |
| | Amount others | 0 | 2 | 0 | 1 | 1 | 3 | 2 | 103 | 13 | 47 | 252 | 6 | 3 | 34 | 3 | 0 | 3 | 473 | 56 | 8 | 5 | 10 |
| | Total amount | 0 | 4 | 0 | 1 | 7 | 3 | 2 | 103 | 13 | 124 | 252 | 6 | 4 | 34 | 6 | 5 | 275 | 839 | 100 | 8 | 38 | 25 |
| | Amount *Oligochaeta* % | 0.0 | 0.0 | 0.0 | 100.0 | 14.3 | 66.7 | 0.0 | 35.9 | 61.5 | 6.5 | 100.0 | 50.0 | 25.0 | 97.1 | 0.0 | 0.0 | 1.1 | | | 100.0 | 7.9 | 16 |
| | Amount *Nematoda* % | 0.0 | 50.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 63.1 | 38.5 | 0.0 | 0.0 | 0.0 | 25.0 | 0.0 | 16.7 | 0.0 | 0.0 | | | 0.0 | 5.3 | 24 |
| | Amount *Acari* % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0 |
| | Amount *Microturbellaria* % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 31.5 | 0.0 | 50.0 | 0.0 | 2.9 | 33.3 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0 |

| | Official designation of the water gauges | T114 | T115 | T117 | T118 | T112 | T111 | T113 | 3Kalmitw | 2Windhor | 1F-Lust- | T107 | NOM-011 | NOM-017 | SOM-020 | SOM-018 | SWM-005 | NWM-009 | NWM-006 | NOM-014 | Number of individuals | Percentage | Number of all individuals | Percentage of all |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Crustacea* | *Amphipoda* | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 41 | 3 | 0 | 0 | 2 | 0 | 0 | 64 | 2.3 | 66 | 1.8 |
| | *Cyclopoida* | 6 | 15 | 64 | 2 | 171 | 0 | 0 | 8 | 19 | 0 | 84 | 15 | 299 | 1 | 28 | 76 | 36 | 12 | 12 | 889 | 31.4 | 976 | 26.6 |
| | *Harpacticoida* | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 1.2 | 33 | 0.9 |
| | *Parastenocaris* | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 2 | 48 | 402 | 0 | 0 | 119 | 0 | 0 | 16 | 0 | 0 | 0 | 598 | 21.2 | 599 | 16.3 |
| | *Bathynelleacea* | 0 | 2 | 1 | 0 | 31 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 97 | 3.4 | 371 | 10.1 |
| | *Nauplia* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 2 | 0.1 |
| | Amount *Crustacea* | 8 | 17 | 67 | 3 | 202 | 73 | 0 | 10 | 67 | 412 | 84 | 15 | 489 | 4 | 28 | 92 | 38 | 12 | 12 | 1681 | 59.5 | 2047 | 55.8 |
| | Amount *Crustacea* % | 5 | 74 | 88 | 27 | 99 | 76 | 0 | 77 | 19 | 65 | 65 | 100 | 97 | 44 | 90 | 26 | 42 | 75 | 52 | | | | |
| | Amount *Amphipoda* % | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 8.1 | 33.3 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 | | | | |
| | Amount *Cyclopoida* % | 3.5 | 65.2 | 84.2 | 18.2 | 83.8 | 0.0 | 0.0 | 61.5 | 5.4 | 0.0 | 64.6 | 100.0 | 59.1 | 11.1 | 90.3 | 21.2 | 40.0 | 75.0 | 52.2 | | | | |
| | Amount *Harpacticoida* % | 0.0 | 0.0 | 2.6 | 9.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | Amount *Parastenocaris* % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.5 | 0.0 | 15.4 | 13.6 | 63.8 | 0.0 | 0.0 | 23.5 | 0.0 | 0.0 | 4.5 | 0.0 | 0.0 | 0.0 | | | | |
| | Amount *Bathynellacea* % | 0.0 | 8.7 | 13 | 0.0 | 15.2 | 64.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | Amount *Nauplia* % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | *Nematoda* | 107 | 4 | 3 | 3 | 1 | 1 | 0 | 0 | 12 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 2 | 5 | 152 | 5.4 | 228 | 6.2 |
| | *Oligochaeta* | 56 | 2 | 6 | 5 | 1 | 22 | 1 | 3 | 274 | 218 | 44 | 0 | 15 | 4 | 3 | 266 | 51 | 2 | 6 | 994 | 35.2 | 1343 | 36.6 |
| | *Acari* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 2 | 0.1 |
| | *Mikturbellaria* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 46 | 1.3 |
| | Amount others | 163 | 6 | 9 | 8 | 2 | 23 | 1 | 3 | 286 | 218 | 46 | 0 | 17 | 5 | 3 | 266 | 52 | 4 | 11 | 1146 | 40.5 | 1619 | 44.2 |
| | Total amount | 171 | 23 | 76 | 11 | 204 | 96 | 1 | 13 | 353 | 630 | 130 | 15 | 506 | 9 | 31 | 358 | 90 | 16 | 23 | 2827 | 100.0 | 3666 | 100 |
| | Amount *Oligochaeta* % | 32.7 | 8.7 | 7.9 | 45.5 | 0.5 | 22.9 | 100.0 | 23.1 | 77.6 | 34.6 | 33.8 | 0.0 | 3.0 | 44.4 | 9.7 | 74.3 | 56.7 | 12.5 | 26.1 | | | | |
| | Amount *Nematoda* % | 62.6 | 17.4 | 3.9 | 27.3 | 0.5 | 1.0 | 0.0 | 0.0 | 3.4 | 0.0 | 1.5 | 0.0 | 0.4 | 11.1 | 0.0 | 0.0 | 1.1 | 12.5 | 21.7 | | | | |
| | Amount *Acari* % | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| | Amount *Microturbellaria* % | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |

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