Date: November 2021

# CORRIGENDUM to EMEP Status Report 2/2021 and MSC-E Data Report 1/2021

Meteorological Synthesizing Centre – East

Measurement data on Pb and Cd concentrations in precipitation and wet deposition fluxes in 2019 at the Polish station PL0005R (Diabla Gora) were not available in the EMEP measurement database (EBAS) at the time of preparation of the EMEP Status Report 2/2021 (Ilyin et al., 2021) and MSC-E Data Report 1/2021 (Strizhkina et al., 2021). Later these measurement data were added to the database and published in the EMEP/CCC Report 3/2021 (Aas and Bohlin-Nizzetto,. 2021). This Corrigendum presents updates of figures and tables in the EMEP Status Report 2/2021 and MSC-E Data Report 1/2021 in accordance with new information for the station PL0005R. The updates are as follows:

1. EMEP Status Report 2/2021:
   - Maps in Fig. 2.2 were updated according to the EMEP/CCC Report 3/2021 (Aas and Bohlin-Nizzetto, 2021).

2. MSC-E Data Report 1/2021:
   - Maps in Fig. 1.1(c) and Fig 1.2(c) were updated (station PL0005R was added)
   - In Tables 4.3 and 4.5 information for PL0005R was included
   - In bar charts in Fig. 4.3 and 4.7 the bars for observed and modelled wet deposition flux of Pb and Cd at station PL0005R were included.
   - In Fig. 4.4 and 4.8 time series of monthly sums of Pb and Cd observed and modelled deposition fluxes at station PL0005R were added.

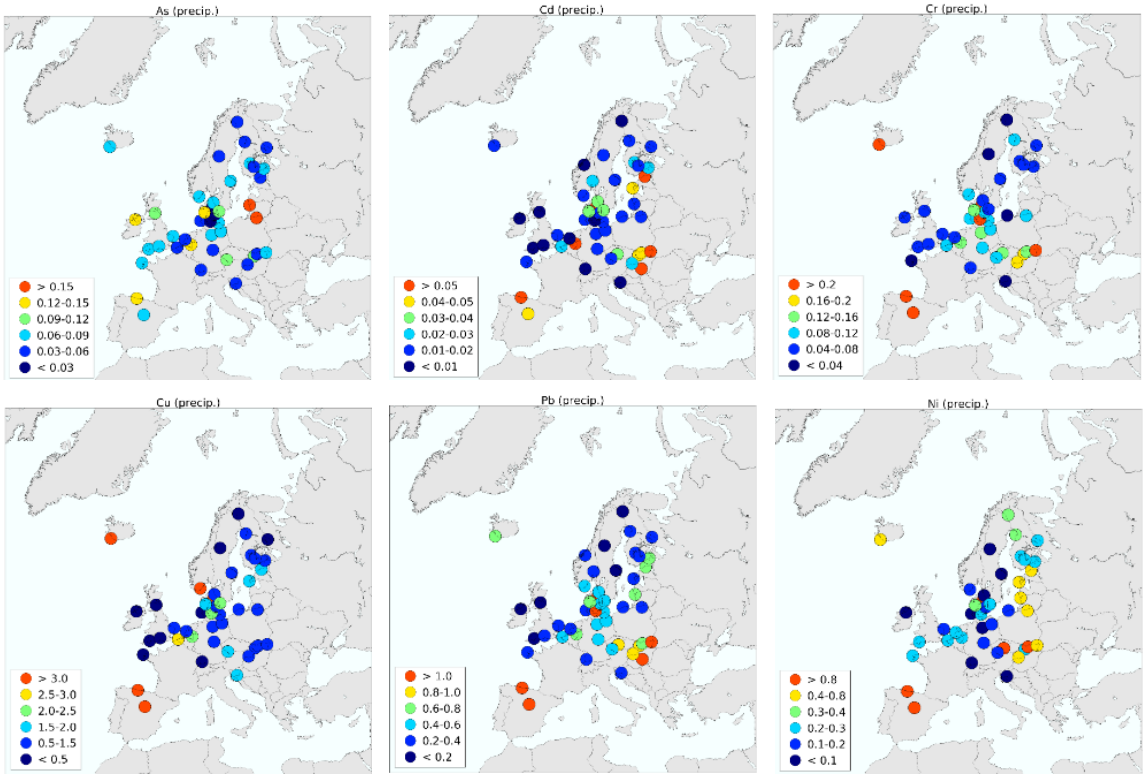
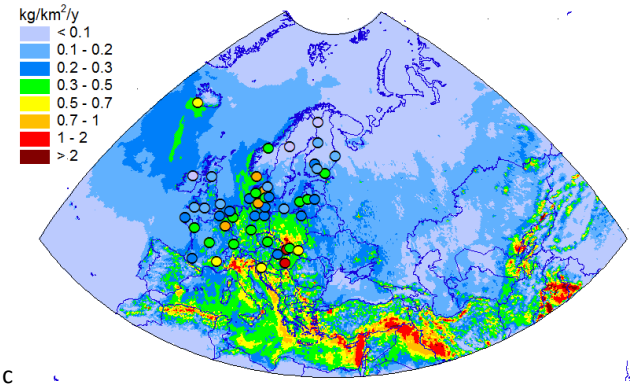
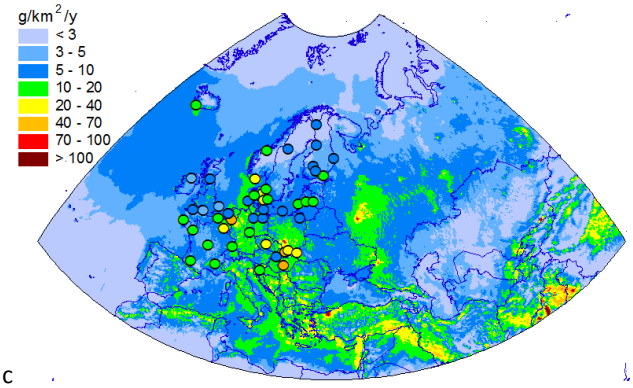



***Fig. 2.2.*** *Annual mean concentrations of As, Cd, Cr, Cu, Ni and Pb in precipitation (µg/L) in 2019.*




c

***Fig. 1.1***. *Concentrations in air (a), total (b) and wet (c) deposition flux of Pb in 2019.*




c

***Fig. 1.2***.*Concentrations in air (a), total (b) and wet (c) deposition flux of Cd in 2019.*

***Table 4.3.*** *Annual sums of modelled and observed Pb wet deposition fluxes, g/km$^2$/y, temporal correlation coefficient (Rc) and relative bias (Bias) at EMEP stations in 2019.*

| Station name | Code | Longit | Latit | Observed flux | Modelled flux | Rc | Bias |
|---|---|---|---|---|---|---|---|
| Koksijde | BE0014R | 2.66 | 51.12 | 276.00 | 333.00 | 0.21 | 20.7 |
| Churanov | CZ0005R | 15.08 | 49.57 | 466.00 | 259.00 | 0.64 | -44.4 |
| Westerland | DE0001R | 8.31 | 54.93 | 244.00 | 329.00 | 0.75 | 34.8 |
| Waldhof | DE0002R | 10.76 | 52.8 | 256.00 | 292.00 | 0.31 | 14.1 |
| Schauinsland | DE0003R | 7.91 | 47.91 | 332.00 | 358.00 | 0.84 | 7.8 |
| Neuglobsow | DE0007R | 13.03 | 53.17 | 235.00 | 230.00 | 0.83 | -2.1 |
| Schmucke | DE0008R | 10.77 | 50.65 | 478.00 | 344.00 | 0.66 | -28.0 |
| Zingst | DE0009R | 12.72 | 54.44 | 209.00 | 164.00 | 0.20 | -21.5 |
| Keldsnor | DK0005R | 10.73 | 54.74 | 817.92 | 191.74 | -0.08 | -76.6 |
| Anholt | DK0008R | 11.52 | 56.72 | 758.66 | 214.66 | 0.22 | -71.7 |
| Riscoe | DK0012R | 12.09 | 55.69 | 483.45 | 270.53 | 0.33 | -44.0 |
| Sepstrup Sande | DK0022R | 9.42 | 56.08 | 346.43 | 271.59 | -0.13 | -21.6 |
| Virolahti III | FI0018R | 27.67 | 60.53 | 400.00 | 158.00 | 0.91 | -60.5 |
| Pallas (Matorova) | FI0036R | 24.24 | 68 | 99.10 | 33.90 | 0.07 | -65.8 |
| Hyytiälä | FI0050R | 24.28 | 61.85 | 226.00 | 100.00 | 0.78 | -55.8 |
| Hailuoto II | FI0053R | 24.69 | 65 | 167.00 | 88.10 | 0.14 | -47.2 |
| Hietajärvi | FI0092R | 30.72 | 63.17 | 178.00 | 76.30 | 0.71 | -57.1 |
| Kotinen | FI0093R | 25.07 | 61.23 | 192.00 | 108.00 | 0.87 | -43.8 |
| Revin | FR0009R | 4.633 | 49.9 | 737.24 | 270.63 | 0.78 | -63.3 |
| Peyrusse Vieille | FR0013R | 0.183 | 43.617 | 293.27 | 81.11 | 0.86 | -72.3 |
| Saint-Nazaire-le-Desert | FR0023R | 5.279 | 44.569 | 611.99 | 385.35 | 0.47 | -37.0 |
| Guipry | FR0024R | -1.836 | 47.832 | 380.51 | 155.93 | 0.58 | -59.0 |
| Vernetuil | FR0025R | 2.61 | 46.815 | 304.14 | 185.14 | 0.47 | -39.1 |
| Porspoder | FR0090R | -4.75 | 48.52 | 286.00 | 266.00 | 0.18 | -7.0 |
| LoughNavar | GB0006R | -7.87 | 54.44 | 45.30 | 83.10 | 0.67 | 83.4 |
| Yarner Wood | GB0013R | -3.71 | 50.6 | 159.00 | 144.00 | 0.65 | -9.4 |
| Heigham Holmes | GB0017R | 1.62 | 52.72 | 112.00 | 85.00 | 0.70 | -24.1 |
| Auchencorth Moss | GB0048R | -3.24 | 55.79 | 127.30 | 112.74 | 0.66 | -11.4 |
| Chilbolton Observatory | GB1055 | -1.44 | 51.15 | 167.45 | 164.09 | 0.60 | -2.0 |
| K-puszta | HU0002R | 19.58 | 46.97 | 1844.80 | 348.57 | 0.33 | -81.1 |
| Vestmannaeyjar | IS0091R | -20.28 | 63.4 | 663.00 | 239.00 | 0.08 | -64.0 |
| Rucava | LV0010R | 21.17 | 56.16 | 391.00 | 188.00 | 0.58 | -51.9 |
| Dobele | LV2000R | 23.32 | 56.62 | 354.00 | 113.00 | 0.29 | -68.1 |
| Skriveri | LV5000R | 25.13 | 56.64 | 265.00 | 107.00 | 0.55 | -59.6 |
| Vredepeel | NL0010R | 5.85 | 51.54 | 453.00 | 256.80 | 0.07 | -43.3 |
| De Zilk | NL0091R | 4.5 | 52.3 | 266.00 | 297.00 | 0.26 | 11.7 |
| Birkenes | NO0001R | 8.25 | 58.38 | 958.00 | 332.00 | 0.85 | -65.3 |
| Kårvatn | NO0039R | 8.88 | 62.78 | 332.00 | 123.00 | 0.61 | -63.0 |
| Leba | PL0004R | 17.53 | 54.75 | 127.00 | 190.00 | 0.16 | 49.6 |
| Diabla Gora | PL0005R | 22.07 | 54.15 | 208.12 | 294.27 | -0.53 | 41.4 |
| Bredkälen | SE0005R | 15.33 | 63.85 | 83.23 | 54.91 | 0.30 | -34.0 |
| Råö | SE0014R | 11.91 | 57.39 | 159.84 | 246.16 | 0.68 | 54.0 |
| Hallahus | SE0020R | 13.15 | 56.04 | 274.86 | 291.80 | -0.01 | 6.2 |
| Iskrba | SI0008R | 14.87 | 45.57 | 512.00 | 612.00 | 0.75 | 19.5 |
| Chopok | SK0002R | 19.58 | 48.93 | 1313.65 | 435.17 | 0.34 | -66.9 |
| Stara Lesna | SK0004R | 20.28 | 49.15 | 362.41 | 427.05 | 0.28 | 17.8 |
| Starina | SK0006R | 22.27 | 49.05 | 564.96 | 420.37 | 0.77 | -25.6 |
| Topolniki | SK0007R | 17.86 | 47.96 | 259.23 | 377.00 | 0.32 | 45.4 |

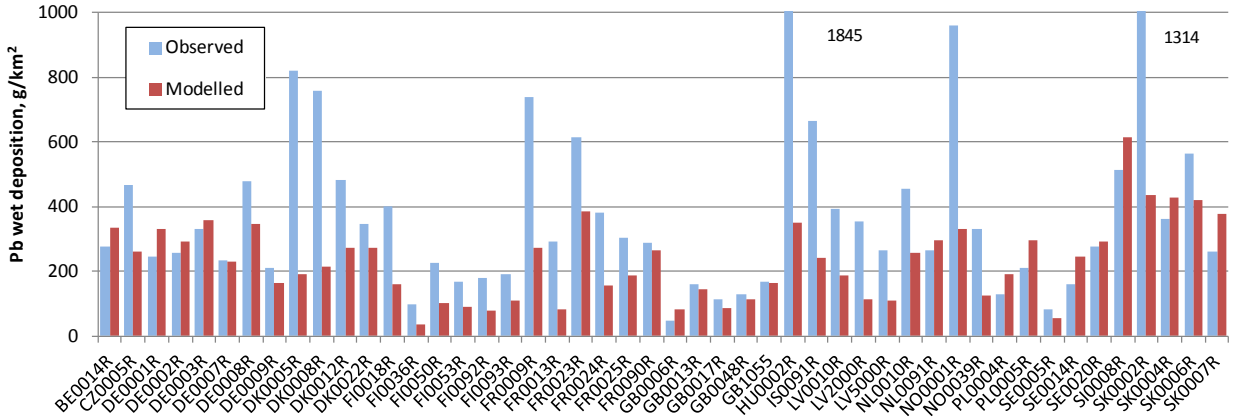



***Fig. 4.3.*** *Modelled and observed annual wet deposition fluxes of Pb at the EMEP stations in 2019.*

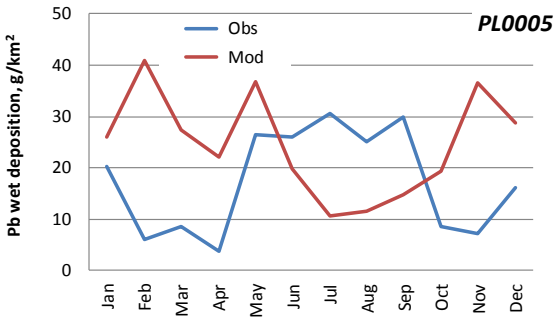



***Fig. 4.4.*** *Modelled and observed monthly wet deposition fluxes of Pb at the EMEP stations in 2019.*

***Table 4.5.*** *Annual sums of modelled and observed Cd wet deposition fluxes, g/km$^2$/y, temporal correlation coefficient (Rc) and relative bias (Bias) at EMEP stations in 2019.*

| Station name | Code | Longit | Latit | Observed flux | Modelled flux | Rc | Bias |
|---|---|---|---|---|---|---|---|
| Koksijde | BE0014R | 2.66 | 51.12 | 13.63 | 10.20 | 0.42 | -25.2 |
| Churanov | CZ0005R | 15.08 | 49.57 | 20.81 | 11.27 | 0.73 | -45.8 |
| Westerland | DE0001R | 8.31 | 54.93 | 8.56 | 12.65 | 0.83 | 47.8 |
| Waldhof | DE0002R | 10.76 | 52.8 | 8.50 | 10.76 | 0.25 | 26.5 |
| Schauinsland | DE0003R | 7.91 | 47.91 | 12.40 | 13.05 | 0.49 | 5.3 |
| Neuglobsow | DE0007R | 13.03 | 53.17 | 7.89 | 8.08 | 0.76 | 2.5 |
| Schmucke | DE0008R | 10.77 | 50.65 | 14.42 | 13.26 | 0.58 | -8.0 |
| Zingst | DE0009R | 12.72 | 54.44 | 8.54 | 5.90 | -0.17 | -31.0 |
| Anholt | DK0008R | 11.52 | 56.72 | 27.58 | 7.83 | 0.28 | -71.6 |
| Riscoe | DK0012R | 12.09 | 55.69 | 20.60 | 10.19 | 0.48 | -50.5 |
| Sepstrup Sande | DK0022R | 9.42 | 56.08 | 13.75 | 10.08 | -0.39 | -26.7 |
| Virolahti III | FI0018R | 27.67 | 60.53 | 14.76 | 5.55 | 0.84 | -62.4 |
| Pallas (Matorova) | FI0036R | 24.24 | 68 | 5.77 | 1.47 | -0.21 | -74.4 |
| Hyytiälä | FI0050R | 24.28 | 61.85 | 9.97 | 3.33 | 0.78 | -66.6 |
| Hailuoto II | FI0053R | 24.69 | 65 | 6.57 | 3.01 | 0.06 | -54.1 |
| Hietajärvi | FI0092R | 30.72 | 63.17 | 6.73 | 3.78 | 0.79 | -43.9 |
| Kotinen | FI0093R | 25.07 | 61.23 | 7.53 | 3.78 | 0.82 | -49.9 |
| Revin | FR0009R | 4.633 | 49.9 | 33.74 | 8.49 | 0.24 | -74.8 |
| Peyrusse Vieille | FR0013R | 0.183 | 43.617 | 12.07 | 2.31 | 0.65 | -80.9 |
| Saint-Nazaire-le-Desert | FR0023R | 5.279 | 44.569 | 19.94 | 9.12 | -0.09 | -54.3 |
| Guipry | FR0024R | -1.836 | 47.832 | 11.57 | 4.00 | 0.63 | -65.4 |
| Vemeuil | FR0025R | 2.61 | 46.815 | 15.26 | 4.39 | 0.52 | -71.2 |
| Porspoder | FR0090R | -4.75 | 48.52 | 11.66 | 8.23 | 0.40 | -29.4 |
| LoughNavar | GB0006R | -7.87 | 54.44 | 3.45 | 2.95 | 0.52 | -14.6 |
| Yamer Wood | GB0013R | -3.71 | 50.6 | 8.55 | 4.94 | 0.53 | -42.2 |
| Heigham Holmes | GB0017R | 1.62 | 52.72 | 3.49 | 3.27 | 0.57 | -6.1 |
| Auchencorth Moss | GB0048R | -3.24 | 55.79 | 5.59 | 3.50 | 0.45 | -37.4 |
| Chilbolton Observatory | GB1055 | -1.44 | 51.15 | 5.00 | 5.68 | 0.53 | 13.6 |
| K-puszta | HU0002R | 19.58 | 46.97 | 68.92 | 10.75 | 0.30 | -84.4 |
| Vestmannaeyjar | IS0091R | -20.28 | 63.4 | 18.57 | 7.08 | 0.60 | -61.9 |
| Rucava | LV0010R | 21.17 | 56.16 | 14.67 | 6.12 | 0.79 | -58.3 |
| Dobele | LV2000R | 23.32 | 56.62 | 15.88 | 3.75 | 0.57 | -76.4 |
| Skriveri | LV5000R | 25.13 | 56.64 | 13.02 | 4.40 | 0.76 | -66.2 |
| Vredepeel | NL0010R | 5.85 | 51.54 | 40.84 | 17.82 | 0.48 | -56.4 |
| De Zilk | NL0091R | 4.5 | 52.3 | 7.15 | 17.59 | 0.23 | 146.0 |
| Birkenes | NO0001R | 8.25 | 58.38 | 25.61 | 9.88 | 0.69 | -61.4 |
| Kårvatn | NO0039R | 8.88 | 62.78 | 11.98 | 4.18 | 0.34 | -65.1 |
| Leba | PL0004R | 17.53 | 54.75 | 6.65 | 5.85 | 0.11 | -11.9 |
| Diabla Gora | PL0005R | 22.07 | 54.15 | 6.93 | 7.12 | 0.5 | 2.6 |
| Bredkälen | SE0005R | 15.33 | 63.85 | 7.60 | 1.99 | 0.41 | -73.9 |
| Råö | SE0014R | 11.91 | 57.39 | 11.64 | 9.68 | 0.55 | -16.8 |
| Hallahus | SE0020R | 13.15 | 56.04 | 12.81 | 9.25 | 0.56 | -27.8 |
| Iskrba | SI0008R | 14.87 | 45.57 | 16.80 | 19.54 | 0.70 | 16.3 |
| Chopok | SK0002R | 19.58 | 48.93 | 53.86 | 13.07 | 0.15 | -75.7 |
| Stara Lesna | SK0004R | 20.28 | 49.15 | 34.72 | 17.22 | -0.32 | -50.4 |
| Starina | SK0006R | 22.27 | 49.05 | 35.78 | 15.17 | 0.01 | -57.6 |
| Topolniki | SK0007R | 17.86 | 47.96 | 9.85 | 15.46 | -0.20 | 57.0 |

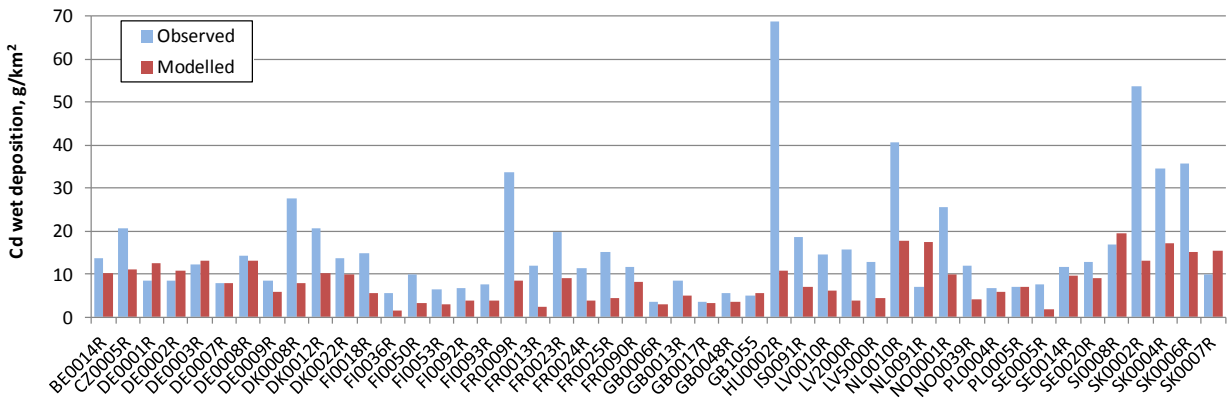



***Fig. 4.7.*** *Modelled and observed annual wet deposition fluxes of Cd at the EMEP stations in 2019.*

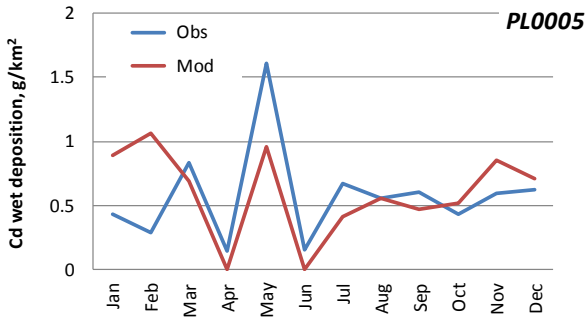



***Fig. 4.8.*** *Modelled and observed monthly wet deposition fluxes of Cd at the EMEP stations in 2019.*

## Reference


Aas W. and Bohlin Nizzetto P. [2021]. Heavy metals and POP measurements 2019. EMEP/CCC-Report 3/2021, 173 p.

Ilyin I., Batrakova N., Gusev A., Kleimenov M., Rozovskaya O., Shatalov V., Strizhkina I., Travnikov O., Breivik K., Halvorsen H.L., Nizzetto P.B., Pfaffuffer K.A., Aas W., Mareckova K., Poupa S., Wankmueller R., Ullrich B. and Degorska A. [2021]. Heavy metals and POPs: Pollution assessment of toxic substances on regional and global scales. EMEP Status Report 2/2021, 148 p.

Strizhkina I., Ilyin I., Rozovskaya O., and Travnikov O. Heavy metals and POPs: Pollution assessment of toxic substances on regional and global scales. Part I. SUPPLEMENTARY MATERIALS FOR HEAVY METALS. MSC-E Data Report 1/2021. 71 p.