

**Table S1:** Continental estimates of surface areas of lakes and rivers based on shapefiles. All data measured and analysed in qGis

| Continent     | Rivers   | Lakes               |                       |                      |                 |          |
|---------------|----------|---------------------|-----------------------|----------------------|-----------------|----------|
|               |          | 1-10Km <sup>2</sup> | 10-100Km <sup>2</sup> | >100 Km <sup>2</sup> | Km <sup>2</sup> | Littoral |
| North America | 124000.0 | 252                 | 213.9                 | 594.1                | 1060300.0       | 197215.8 |
| South America | 97900.6  | 18.5                | 25.3                  | 50.6                 | 94400.0         | 17558.4  |
| Asia          | 71014.3  | 85.9                | 87.2                  | 638.1                | 811200.0        | 150883.2 |
| Europe        | 40473.0  | 41.2                | 44.4                  | 81.0                 | 166600.0        | 30987.6  |
| Australia     | 11594.5  | 2.8                 | 4.9                   | 5.1                  | 12800.0         | 2380.8   |
| Africa        | 91389.2  | 7.9                 | 12.7                  | 203.8                | 224400.0        | 41738.4  |
|               | 436371.6 |                     |                       |                      | 2369700.0       | 440764.0 |

**Table S1:** Global estimates of surface area of lakes and rivers from diverse datasets

| units           | lotic  | lentic  | reference              |
|-----------------|--------|---------|------------------------|
| Km <sup>2</sup> | 662000 | *       | Downing 2012           |
| Km <sup>2</sup> | 570000 | *       | Battin et al. 2008     |
| Km <sup>2</sup> | 624000 | 3000000 | Raymond et al. 2013    |
| Km <sup>2</sup> | *      | 5000000 | Verpoorter et al. 2014 |
| Km <sup>2</sup> | 773000 | *       | Allen & Pavelsky 2018  |
| Km <sup>2</sup> | *      | 4200000 | Downing et al. 2006    |
| Km <sup>2</sup> | *      | 3900000 | McDonald et al. 2012   |
| Km <sup>2</sup> | *      | 3160000 | McDonald et al. 2012   |
| Km <sup>2</sup> | *      | 4000000 | McDonald et al. 2012   |

### Source Bibliography

- ALLEN, G. H. & PAVELSKY, T. M. 2018. Global extent of rivers and streams. *Science (New York, N.Y.)* 361:585–588.
- BATTIN, T. J., KAPLAN, L. A., FINDLAY, S., HOPKINSON, C. S., MARTI, E., PACKMAN, A. I., NEWBOLD, J. D. & SABATER, F. 2008. Biophysical controls on organic carbon fluxes in fluvial networks. *Nature Geoscience* 1:95–100.
- DOWNING, J. 2012. Global abundance and size distribution of streams and rivers. *Inland Waters* 2:229–236.
- DOWNING, J. A., PRAIRIE, Y. T., COLE, J. J., DUARTE, C. M., TRANVIK, L. J., STRIEGL, R. G., McDOWELL, W. H., KORTELAINEN, P., CARACO, N. F., MELACK, J. M. & MIDDELBURG, J. J. 2006. The global abundance and size distribution of lakes, ponds, and impoundments. *Limnology and Oceanography* 51:2388–2397.
- MCDONALD, C. P., ROVER, J. A., STETS, E. G. & STRIEGL, R. G. 2012. The regional abundance and size distribution of lakes and reservoirs in the United States and implications for estimates of global lake extent. *Limnology and Oceanography* 57:597–606.

- RAYMOND, P. A., HARTMANN, J., LAUERWALD, R., SOBEK, S., MCDONALD, C., HOOVER, M., BUTMAN, D., STRIEGL, R., MAYORGA, E., HUMBORG, C., KORTELAINEN, P., DÜRR, H., MEYBECK, M., CIAIS, P. & GUTH, P. 2013. Global carbon dioxide emissions from inland waters. *Nature* 503:355–359.
- VERPOORTER, C., KUTSER, T., SEEKELL, D. A. & TRANVIK, L. J. 2014. A global inventory of lakes based on high-resolution satellite imagery. *Geophysical Research Letters* 41:6396–6402.