Supplementary material

**Table S1.** Zooplankton community for each investigated lake [15–18,41,42].

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TAXA** | **Mergozzo** | **Moro** | **Endine** | **Comabbio** | **Pusiano** |
| *Daphnia longispina* (O.F. Müller, 1776) | X | X | X |  | X |
| *Daphnia cucullata* (Sars, 1862) |  |  |  | X |  |
| *Bosmina longirostris* (O.F. Müller, 1776) |  |  | X |  | X |
| *Eubosmina coregoni* (Baird, 1850) | X | X |  |  |  |
| *Eubosmina longispina* (Leydig, 1860) |  |  |  | X |  |
| *Ceriodaphnia pulchella* (Sars, 1862) |  |  |  | X |  |
| *Ceriodaphnia quadrangula* (O.F. Müller, 1785) |  |  | X |  | X |
| *Diaphanosoma brachyurum* (Liévin, 1848) | X |  |  | X | X |
| *Cyclops abyssorum cfr. divergens* (Lindberg, 1836) | X | X |  | X | X |
| *Cyclops strenuus* (Fisher, 1851) |  |  | X |  |  |
| *Mesocyclops leuckarti* (Claus, 1857) | X | X | X | X | X |
| *Thermocyclops crassus* (Fisher, 1853) |  |  | X | X |  |
| *Thermocyclops hyalinus* (Rehberg, 1880) | X |  |  |  | X |
| *Eudiaptomus gracilis* (Sars, 1863) |  |  |  |  | X |
| *Eudiaptomus padanus* (Burckhardt, 1900) | X | X |  | X |  |
| *Leptodora kindtii* (Focke, 1844) | X |  |  |  | X |
| *Bythotrephes longimanus* (Leydig, 1860) | X |  |  |  |  |

**Table S2.** Carbon and nitrogen isotopic mean values and relative standard deviations.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **13C‰** | **SD** | **15N‰** | **SD** |
| Mergozzo | Cyclopoids  Diaptomids  *Daphnia*  *Bosmina*  *Diaphanosoma*  *Bythotrephes*  *Leptodora* | -30.5  -28.0  -27.0  -20.5  -23.6  -24.6  -21.9 | ±3.2  ±6.0  ±4.8  -  -  -  - | 8.2  4.5  1.2  0.1  0.1  3.6  2.0 | ±1.3  ±4.4  ±1.0  -  -  -  - |
|  |  |  |  |  |  |
| Moro | Cyclopoids  Diaptomids  *Daphnia* | -35.6  -33.5  -33.0 | ±1.7  ±3.5  ±4.4 | 16.6  13.9  8.9 | ±0.9  ±1.7  ±4.1 |
|  |  |  |  |  |  |
| Endine | Cyclopoids  Diaptomids  *Daphnia*  *Bosmina*  *Diaphanosoma* | -32.5  -34.1  -33.6  -34.1  -33.8 | ±0.6  ±0.8  ±1.3  ±0.2  - | 8.5  9.5  4.1  3.8  4.9 | ±1.2  ±0.9  ±1.7  ±1.6  - |
|  |  |  |  |  |  |
| Comabbio | Diaptomids  *Daphnia* | -21.0  -23.7 | ±3.7  ±5.1 | 9.0  6.1 | ±3.8  ±0.8 |
|  |  |  |  |  |  |
| Pusiano | Cyclopoids  Diaptomids  *Daphnia* | -32.1  -36.1  -31.4 | ±5.6  -  ±5.9 | 14.1  17.5  12.6 | ±5.1  -  ±6.0 |