

**Supplementary Table S2.** Morphometric data recorded by light microscopy for three isolates of *Haematococcus privus*, two isolates of *H. lacustris*, one isolate of *H. rubens* and one isolate of *H. rubicundus*

| Strain by trait                              | Mean motile cell length | Mean motile cell width | Mean CL : CW difference | Mean protoplast length | Mean protoplast width | Mean PL : PW difference | Mean CL : CW difference | Mean CL : PL ratio | Mean PL : PW ratio | Mean flagella length | Mean akinete diameter | Mean pyrenoid number and range | Wall papillum | Plasma papillum | Cytoplasmic strands |
|--|-------------------------|------------------------|-------------------------|------------------------|-----------------------|-------------------------|-------------------------|--------------------|--------------------|----------------------|-----------------------|--------------------------------|---------------|-----------------|---------------------|
| <i>H. lacustris</i> NIES-144                 | 28.8                    | 24.4                   | 4.4                     | 20.9                   | 18.2                  | 2.7                     | 1.2                     | 1.4                | 1.2                | 20.4                 | 24.1                  | 3.4 (1-6)                      | <50% present  | Mostly present  | Sparse              |
| <i>H. lacustris</i> SAG 49.94                | 22.6                    | 20.8                   | 1.8                     | 18.7                   | 17.4                  | 1.2                     | 1.1                     | 1.2                | 1.1                | 25.1                 | 19.6                  | 2.3 (1-3)                      | Absent        | Mostly absent   | Sparse              |
| <i>H. privus</i> HP136                       | 27.6                    | 23.9                   | 3.7                     | 22.2                   | 18.0                  | 4.3                     | 1.2                     | 1.3                | 1.3                | 18.2                 | 32.0                  | 2.7 (1-4)                      | <50% present  | Mostly present  | Present             |
| <i>H. privus</i> HP137                       | 30.7                    | 26.3                   | 4.4                     | 23.5                   | 18.4                  | 5.1                     | 1.2                     | 1.3                | 1.3                | 17.0                 | 28.0                  | 2.6 (1-6)                      | <50% present  | Mostly present  | Present             |
| <i>H. privus</i> HP138                       | 28.3                    | 23.2                   | 5.1                     | 22.6                   | 17.8                  | 4.7                     | 1.2                     | 1.3                | 1.3                | 20.9                 | 30.7                  | 2.8 (1-6)                      | >50% present  | Present         | Present             |
| <i>H. rubens</i> SAG 34-1h                   | 26.9                    | 23.7                   | 3.2                     | 21.7                   | 13.6                  | 8.1                     | 1.2                     | 1.3                | 1.6                | 22.5                 | 27.5                  | 2.9 (2-5)                      | <50% present  | Present         | Sparse              |
| <i>H. rubens</i> (Allewaert et al. 2015)     | 31.4                    | 26.9                   | 4.5                     | 23.0                   | 19.4                  | 3.6                     | 1.2                     | 1.4                | 1.2                | NA                   | NA                    | 2-6                            | Absent        | Present         | Sparse              |
| <i>H. rubicundus</i> SAG 34-1c               | 24.6                    | 21.7                   | 2.8                     | 19.5                   | 17.2                  | 2.3                     | 1.1                     | 1.3                | 1.1                | 18.3                 | 20.5                  | 2.1 (1-4)                      | <50% present  | Mostly present  | Sparse              |
| <i>H. rubicundus</i> (Allewaert et al. 2015) | 26.5                    | 23.5                   | 3.0                     | 21.3                   | 19.5                  | 1.8                     | 1.1                     | 1.2                | 1.1                | N/A                  | N/A                   | 1-11                           | Absent        | Mostly absent   | Sparse              |

Published data from Allewaert et al. (2015) are included for *H. rubens* and *H. rubicundus*.

All lengths in micrometers. CL, cell length; CW, cell width; PL, protoplast length; PW, protoplast width; NA, not available.

## REFERENCE

Allewaert, C. C., Vanormelingen, P., Pröschold, T., Gómez, P. I., González, M. A., Bilcke, G., D'Hondt, S. & Vyverman, W. 2015. Species diversity in European *Haematococcus pluvialis* (Chloophyceae, Volvocales). *Phycologia* 54:583–598.