**S3 Table. List of strains of *Volvox* sp. Sagami and *V. ferrisii* Isaka et al. used in measurements of swimming velocity during phototaxis (Fig 4).**

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|  |  |  |
| --- | --- | --- |
| Species/lineage | Strain designation | Origin of strain |
|
| *Volvox* sp. Sagami | 13-614-Vx12 a（=NIES-4021）13-614-Vx13 a（=NIES-4022） | Lake Sagami, Kanagawa, Japan (14 June 2013)  |
|  | 14-614-Vx04 a（=NIES-4025） | Lake Tsukui, Kanagawa, Japan (14 June 2014) |
|  | 15-Sagami8-2 a（=NIES-4027） | Lake Sagami, Kanagawa, Japan (10 June 2015) |
|  | 15-630-VVx4 a（=NIES-4026） | Miyaike Pond, Shiga, Japan (29 June 2015) |
| *Volvox ferrisii* | NIES-3988  | Pond, Isanuma, Kawagoe-shi.Saitama, Japan (2 May 2015) b |
|  | NIES-2736  | Rice paddy, Kawasaki-shi, Kanagawa, Japan (31 January 1984) c |
|  | NIES-2737  | Rice paddy, Hitachinaka-shi, Ibaraki, Japan (6 July 2004) c |
|  | NIES-3987  | Rice paddy, Nara, Japan (15 March 2012) b |
| a Established in this study (S1 Table). |  |
| b From Microbial Culture Collection at the National Institute for Environmental Studies (http://mcc.nies.go.jp/localeAction.do?lang=en). |

 c From Isaka et al. [1].

**Reference**

1. Isaka N, Kawai-Toyooka H, Matsuzaki R, Nakada T, Nozaki H. Description of two new monoecious species of *Volvox* sect. *Volvox* (Volvocaceae, Chlorophyceae), based on comparative morphology and molecular phylogeny of cultured material. J. Phycol. 2012; 48: 759–767. doi: 10.1111/j.1529-8817.2012.01142.x