

	number	Culture collection
Chlorophyta		
Ulvophyceae		
Ulvales		
<i>Acrochaete repens</i>	E093db	Barbara Rinkel (Natural History Museum, London)
<i>Bolbocoleon piliferum</i>	E344pc	Barbara Rinkel (Natural History Museum, London)
<i>Ulva fenestrata</i>	EE2 and EE6	Field collection at Goese Sas (Netherlands)
<i>Ulva intestinalis</i>	EE3	Field collection at Goese Sas (Netherlands)
Ignatius-clade		
<i>Ignatius tetrasporus</i>	B 2012	UTEX culture collection of algae (University of Texas at Austin, USA)
Trentepohliales		
<i>Trentepohlia aurea</i>	483-1	Sammlung von Algenkulturen (University of Göttingen, Germany)
Bryopsidales		
<i>Blastophysa rhizopus</i>	LB 1029	UTEX culture collection of algae (University of Texas at Austin, USA)
<i>Bryopsis</i> sp.	EE4	Field collection at Goese Sas (Netherlands)
<i>Codium</i> sp	HEC 15711	Field collection in Madeira
<i>Derbesia</i> sp.	2773-1	Tatiana Klotchkova (Kongju National University, Korea)
<i>Ostreobium quekettii</i>	6.99	Sammlung von Algenkulturen (University of Göttingen, Germany)
Dasycladales		
<i>Acetabularia acetabulum</i>	LB 2694	UTEX culture collection of algae (University of Texas at Austin, USA)
<i>Bornetella sphaerica</i>	LB 2690	UTEX culture collection of algae (University of Texas at Austin, USA)
Siphonocladales		
<i>Boodlea composita</i>	Bcomp4, BoTTd75	Jeanine Olsen and Wytze Stam (University of Groningen, Netherlands)*
<i>Cladophora coelothrix</i>	Ccoel2, C83.14	Jeanine Olsen and Wytze Stam (University of Groningen, Netherlands)*
<i>Dictyosphaeria cavernosa</i>	Dcav3, D.cavSJ25b	Jeanine Olsen and Wytze Stam (University of Groningen, Netherlands)*
<i>Ernodesmis verticillata</i>	Erno4, EvVGa88	Jeanine Olsen and Wytze Stam (University of Groningen, Netherlands)*
<i>Phyllocladon orientale</i>	Struv1, West 1631	John West (University of Melbourne, Australia)
<i>Valonia utricularis</i>	Vutric2, VU1546	Jeanine Olsen and Wytze Stam (University of Groningen, Netherlands)*
Chlorophyceae		
<i>Chlamydomonas reinhardtii</i>	CC1690	Chlamydomonas Center (Duke University, USA)
<i>Scenedesmus obliquus</i>	1450	UTEX culture collection of algae (University of Texas at Austin, USA)
Trebouxiophyceae		
<i>Chlorella kessleri</i>	211-11g	Sammlung von Algenkulturen (University of Göttingen, Germany)
Prasinophyceae		
<i>Tetraselmis striata</i>	41.85	Sammlung von Algenkulturen (University of Göttingen, Germany)
<i>Ostreococcus tauri</i>	OTH95	Hervé Moreau (Observatoire Océanologique de Banyuls)
<i>Nephroselmis olivacea</i>	40.89	Sammlung von Algenkulturen (University of Göttingen, Germany)
Streptophyta		
<i>Chlorokybus atmophyticus</i>	48.80	Sammlung von Algenkulturen (University of Göttingen, Germany)
<i>Entransia fimbriata</i>	LB 2793	UTEX culture collection of algae (University of Texas at Austin, USA)
<i>Spirogyra</i> sp.	169.80	Sammlung von Algenkulturen (University of Göttingen, Germany)

Table S1. Algal strain information.

*now maintained in the Phycology Research Group, Ghent University