

2. List of culture strains

[In alphabetic order within class, including strain data]

PHAEOPHYCEAE (Brown Algae)

Acinetospora crinita (Carmichael ex Harvey) Kornmann

Strain: KU-1163. **Origin:** Naples, Italy (1983-10-15). **Leg./Isol.** E.C. Henry. **Culture:** PESI; 10°C. **Note:** On *Dictyopteris membranacea*, progeny of KU-2163 (uniloc) (Acinet crin Nap U4b); *cox3*.

Agarum clathratum Dumortier

Strain: KU-314. **Origin:** Auke Bay, AK, USA (1996-4-7). **Leg./Isol.** S. Lindstrom/H. Kawai. **Culture:** PESI; 10°C. **Note:** Endophyte of *Orculifilum denticulatum*, gametophyte [JUN-1]. **Reference:** Sasaki et al. (2003)

Alaria crassifolia Kjellman

Strain: KU-1164. **Origin:** Hokkaido, Japan (1981). **Leg./Isol.** T. Funano. **Culture:** PESI; 10°C. **Note:** Female gametophyte (Ala crass 1f); *cox3*; cryopreserved.

Strain: KU-1165. **Origin:** Hokkaido, Japan (1981). **Leg./Isol.** T. Funano. **Culture:** PESI; 10°C. **Note:** Male gametophyte (Ala crass 1f); *cox3*; cryopreserved.

Alaria esculenta (Linnaeus) Greville

Strain: KU-1166. **Origin:** Hokkaido, Japan (1981). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte; intertidal (Ala esc Aran 88-2 m); *cox3*; cryopreserved.

Strain: KU-1167. **Origin:** Inismaan, Aran Islands, Ireland (1988-9-25). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte; intertidal (Ala esc 88-4 f); *cox3*; cryopreserved.

Analipus japonicus (Harvey) Wynne

Strain: KU-883. **Origin:** Akkeshi, Hokkaido, Japan (1986-6-26). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Isolated from unizoid; *cox3*; cryopreserved.

Arthrocladia villosa (Hudson) Duby

Strain: KU-1169. **Origin:** Villefranche-sur-Mer, France (1980-8-29). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** 10 m deep, near Zoological Station (Art 16).

Asperococcus bullosus Lamouroux

Strain: KU-570. **Origin:** Ehime, Japan (1987-6). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Asexual gametophyte; *cox3*; cryopreserved.

Asteronema rhodochortonoides (Børgesen) D.G. Müller et E.R. Parodi

Strain: KU-1188. **Origin:** Port Elizabeth, South Africa (1993-7-18). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Tide pool, on *Sargassum heterophyllum* (Astero rhodo SAF 18-3).

Strain: KU-1203. **Origin:** Isla Hierro, Canary Islands, Spain (1991-10-3). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Near light house, tide pool, on *Cystoseira* sp. (Astero rhodo CI 60-3).

Botrytella micromora Bory de Saint-Vincent

Strain: KU-1161. **Origin:** Langstone Harbour, England, UK (1983-8-29). **Leg./Isol.** W. Farnham/D.G. Müller. **Culture:** PESI; 10°C. **Note:** *cox3*; cryopreserved.

Strain: KU-1162. **Origin:** Helgoland, Germany (1956-5-17). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** *cox3*; cryopreserved.

Caepidium antarcticum J. Agardh

Strain: KU-1160. **Origin:** Fuerte Bulnes, Chile (1989-1-28). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal.

Carpomitra costata (Stackhouse) Batters

Strain: KU-560. **Origin:** Seto Inland Sea, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C.

Strain: KU-1158. **Origin:** Kaikoura, Pt. Kean, New Zealand (1988-8-21). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift (Carpo NZ 88-2-6); *cox3*.

Strain: KU-1159. **Origin:** Villefranche-sur-Mer, France (1980-9-2). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Dredged from 30m deep, monoecious (Carpo VF 69); *cox3*; cryopreserved.

Chorda asiatica Sasaki et Kawai

Strain: KU-213. **Origin:** Nagasaki, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *Chorda filum* auct. japon; *cox3*; cryopreserved. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-214. **Origin:** Nagasaki, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *Chorda filum* auct. Japon; *cox3*; cryopreserved. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-494. **Origin:** Heigun Isl., Yamaguchi, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *Chorda filum* auct. japon. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-495. **Origin:** Heigun Isl., Yamaguchi, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *Chorda filum* auct. japon; *cox3*; cryopreserved. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-496. **Origin:** Heigun Isl., Yamaguchi, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *Chorda filum* auct. japon; *cox3*; cryopreserved. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-497. **Origin:** Heigun Isl., Yamaguchi, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *Chorda filum* auct. japon. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-498. **Origin:** Takahama, Fukui, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *Chorda filum* auct. japon. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-499. **Origin:** Kamikamagari Isl. Hiroshima, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *Chorda filum* auct. japon. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-500. **Origin:** Takahama, Fukui, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *Chorda filum* auct. japon. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-501. **Origin:** Kamikamagari Isl. Hiroshima, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *Chorda filum* auct. japon. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-502. **Origin:** Takahama, Fukui, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *Chorda filum* auct. japon. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-503. **Origin:** Kamikamagari Isl., Hiroshima, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *Chorda filum* auct. japon; *cox3*; cryopreserved. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-504. **Origin:** Takahama, Fukui, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *Chorda filum* auct. japon. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-505. **Origin:** Kamikamagari Isl., Hiroshima, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *Chorda filum* auct. japon; *cox3*; cryopreserved. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Chorda filum (Linnaeus) Stackhouse

Strain: KU-353. **Origin:** Bergen, Norway (1991-8). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-1041. **Origin:** Bergen, Norway (1991-8). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte. **Reference:** Kawai et al. (2001); Sasaki & Kawai (2007).

Strain: KU-1156. **Origin:** Roscoff, France (1989-9-15). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte; intertidal; *cox3*; cryopreserved.

Strain: KU-1157. **Origin:** Roscoff, France (1989-9-15). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte; intertidal; *cox3*; cryopreserved.

Strain: KU-1148. **Origin:** Killeany Bay, Aran Islands, Ireland (1977-7-30). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte (*Chorda fil Aran 9 f*); *cox3*; cryopreserved.

Strain: KU-1149. **Origin:** Killeany Bay, Aran Islands, Ireland (1977-7-30). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte (*Chorda fil Aran 7 m*); *cox3*; cryopreserved.

Chorda kikonaiensis Sasaki et Kawai

Strain: KU-200. **Origin:** Kikonai, Hokkaido, Japan (2000-7). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte. **Reference:** Sasaki & Kawai (2007).

Strain: KU-215. **Origin:** Kikonai, Hokkaido, Japan (2000-7). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte. **Reference:** Sasaki & Kawai (2007).

Chorda rigida Kawai et Arai

Strain: KU-725. **Origin:** Sado Isl., Niigata, Japan (1996). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; cryopreserved. **Reference:** Kawai et al. (2001).

Strain: KU-1042. **Origin:** Kashiwazaki, Niigata, Japan (1996-11-13). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte. **Reference:** Kawai et al. (2001).

Chordaira chordaeformis (Kjellman) Kawai et Kim

Strain: KU-448. **Origin:** Hanasaki, Hokkaido, Japan (1980-8). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Gametophyte (CHC-1); *cox3*; cryopreserved. **Reference:** Kim & Kawai (2002).

Chordaria flagelliformis (O.F. Müller) C. Agardh

Strain: KU-873. **Origin:** Elby Point, Isle of Man, UK (1999-8-25). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Gametophyte; *cox3*; cryopreserved. **Reference:** Kim & Kawai (2002).

Strain: KU-1150. **Origin:** Helgoland, Germany (1985-8-22). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal, isolated from unizoid (*Chorda fl Hel 1*); *cox3*; cryopreserved.

Chordaria magellanica Kylin

Strain: KU-1151. **Origin:** Puerto Williams, Chile (1986-2-9). **Leg./Isol.** C. Wiencke/D.G. Müller. **Culture:** PESI; 10°C. **Note:** (*Chorda mag 1*); *cox3*; cryopreserved.

Choristocarpus tenellus Zanardini

Strain: KU-1152. **Origin:** Villefranche-sur-Mer, France (1980-9-1). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** 18 m deep (*Choristoc 6*); *cox3*; cryopreserved.

Cladostephus spongiosus (Hudson) C. Agardh

Strain: KU-1153. **Origin:** Villefranche-sur-Mer, France (1997-2-11). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (*Cladost VF 4*); *cox3*.

Cladothele decaisnei J.D. Hooker et Harvey

Strain: KU-1154. **Origin:** Puerto Williams, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Cladot PW d); *cox3*.

Coelocladia arctica Rosenvinge

Strain: KU-906. **Origin:** Oshoro, Hokkaido, Japan (1988-5-24). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** *cox3*; cryopreserved. **Reference:** Kawai (1997).

Colpomenia phaeodactyla Wynne et J.N. Norris

Strain: KU-1217. **Origin:** Pangal, Robison Crusoe, Juan Fernandez, Chile (1996-12-17). **Leg./Isol.** M.E. Ramirez/D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal (Colpo phaeo RC 5-1); *cox3*.

Colpomenia sinuosa (Mertens ex Roth) Derbes et Solier

Strain: KU-1216. **Origin:** Easter Island, Chile (1996-12-9). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** 1 m deep on *Caulerpa* sp. (Colpo sin 1 IP 20).

Cutleria multifida (Turner) Greville

Strain: KU-1189. **Origin:** Villefranche-sur-Mer, France (1967-3-22). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (CMVF 1b m).

Desmarestia aculeata (Linnaeus) J.V. Lamouroux

Strain: KU-1140. **Origin:** Helgoland, Germany (1987-1-23). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte (Des ac Hel 3m); *cox3*; cryopreserved.

Strain: KU-1141. **Origin:** Helgoland, Germany (1987-1-23). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte (Des ac Hel 5f); *cox3*; cryopreserved.

Desmarestia distans (C. Agardh) J. Agardh

Strain: KU-1139. **Origin:** Punta Arenas, Chile (1988-1-24). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Des dist PA 1- 3b); *cox3*; cryopreserved.

Desmarestia firma (C. Agardh) Skottsberg

Strain: KU-1143. **Origin:** La Herradura, Coquimbo, Chile (1985-8). **Leg./Isol.** M.E. Ramirez/D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte (Des firma CH Coq 85f); *cox3*; cryopreserved.

Strain: KU-1144. **Origin:** La Herradura, Coquimbo, Chile (1985-8). **Leg./Isol.** M.E. Ramirez/D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte (Des firma CH Coq 85m); *cox3*; cryopreserved.

Desmarestia gayana Montagne

Strain: KU-1138. **Origin:** Puerto Montt, Estanquilla, Chile (1988-2-3). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Des gay a); *cox3*; cryopreserved.

Desmarestia herbacea J.V. Lamouroux

Strain: KU-1132. **Origin:** Isla Bridge, Ushuaia, Argentina (1989-2-6). **Leg./Isol.** M.E. Ramirez/D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Des herb Sam 103-1); *cox3*; cryopreserved.

Desmarestia ligulata (Stackhouse) J.V. Lamouroux

Strain: KU-1145. **Origin:** Valdivia, Niebla, La Mision, Chile (1987-1-31). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift, (Des lig CH 87-14a); *cox3*; cryopreserved.

Desmarestia muelleri M.E. Ramírez et A.F. Peters

Strain: KU-1142. **Origin:** Concepcion, Tome, Chile (1988-2-5). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift, monoecious (Des muell CH Tome 6a); *cox3*; cryopreserved.

Desmarestia viridis (O.F. Müller) J.V. Lamouroux

Strain: KU-1146. **Origin:** Helgoland, Germany (1978-6-9). **Leg./Isol.** K. Lüning/A.F. Peters. **Culture:** PESI; 10°C. **Note:** (Des vir Hel); *cox3*; cryopreserved.

Desmarestia willii Reinsch

Strain: KU-1147. **Origin:** Punta Arenas, Chile (1988-1-24). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift (Des will PA-9-1a); *cox3*; cryopreserved.

Desmerestia sp.

Strain: KU-1136. **Origin:** Valdivia, San Carlos, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Des pat. SC10); *cox3*; cryopreserved.

Desmotrichum sp.

Strain: KU-1135. **Origin:** St. Lawrence Isl., Bering Sea, Alaska, USA (1996-8-5). **Leg./Isol.** H. Kawai/D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal, rock platforms, together with *Pylaiella* (Desmo BS1); *cox3*.

Dictyopteris latiuscula (Okamura) Okamura

Strain: KU-1072. **Origin:** Awaji Isl., Hyogo, Japan (2004). **Leg./Isol.** T. Shimono. **Culture:** PESI; 10°C. **Note:** *cox3*.

Dictyopteris prolifera (Okamura) Okamura

Strain: KU-960. **Origin:** Yura, Awaji Isl., Hyogo, Japan (1997-5-13). **Leg./Isol.** T. Hara/T. Shimono. **Culture:** PESI; 10°C. **Note:** *cox3*.

Dictyota dichotoma (Hudson) J. V. Lamouroux

Strain: KU-963. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-7-29). **Leg./Isol.** T. Shimono. **Culture:** PESI; 10°C. **Note:** *cox3*.

Strain: KU-1070. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2004). **Leg./Isol.** T. Shimono. **Culture:** PESI; 10°C. **Note:** *cox3*.

Dictyota phlyctaenodes Montagne

Strain: KU-1204. **Origin:** Pangal, Robison Crusoe, Juan Fernandez, Chile (1991-2-1). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** 1 m deep (Dict phlyct RC 8-4); *cox3*.

Strain: KU-1205. **Origin:** Fuerteventura, Lanzarote, Canary Islands, Spain (1991-9-30). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** *cox3*.

Dilophus okamurae E.Y. Dawson [= *Rugulopteryx okamurae* (Dawson) Hwang, Lee et Kim]

Strain: KU-958. **Origin:** Awaji Isl., Hyogo, Japan (unknown). **Leg./Isol.** T. Shimono. **Culture:** PESI; 10°C.

Distromium decumbens (Okamura) Levring

Strain: KU-957. **Origin:** Shirahama, Wakayama, Japan (2002-6-14). **Leg./Isol.** T. Shimono. **Culture:** PESI; 10°C.

Ecklonia maxima (Osbeck) Papenfuss

Strain: KU-1116. **Origin:** Cape Town, Olifant's Bay, South Africa (1993-7-14). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte, drift (Eck max SAf 14-1f); *cox3*; cryopreserved.

Strain: KU-1125. **Origin:** Cape Town, Olifant's Bay, South Africa (1993-7-14). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte, drift (Eck max SAf 14-2m); *cox3*; cryopreserved.

Ecklonia radiata (C. Agardh) J. Agardh

Strain: KU-1126. **Origin:** Karaka Bay, Wellington, New Zealand (1988-8-30). **Leg./Isol.** D.G. Müller. **Culture:**

PESI; 10°C. **Note:** Male gametophyte, low intertidal (Eck rad NZ 88-24-1m); *cox3*; cryopreserved.

Strain: KU-1127. **Origin:** Karaka Bay, Willington, New Zealand (1988-8-30). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte, low intertidal (Eck rad NZ 88-24-2f); *cox3*; cryopreserved.

Strain: KU-1133. **Origin:** Flinders, Victoria, Australia (1981-9-15). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte (Eck rad Vic 10m); *cox3*; cryopreserved.

Strain: KU-1134. **Origin:** Flinders, Victoria, Australia (1981-9-15). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte (Eck rad Vic 11f); *cox3*.

Ectocarpus fasciculatus Harvey

Strain: KU-1107. **Origin:** Roscoff, France (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte derived from a sporophyte, which itself was constructed from two gametophytes resulting from meiospores produced by the field-collected sporophyte Ec fas Ros 93 31 (Ec Fas ras 93-31 Z7 G12f); *cox3*. **Reference:** Stache-Crain et al. (1997).

Strain: KU-1128. **Origin:** Niebla, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte derived from meiospores of a field-collected sporophyte (Ec fas CH 92 Nie 2f); *cox3*; cryopreserved. **Reference:** Stache-Crain et al. (1997).

Strain: KU-1129. **Origin:** Niebla, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte derived from meiospores of a field-collected sporophyte (Ec fas CH 92 Nie 3m); *cox3*; cryopreserved.

Strain: KU-1130. **Origin:** Niebla, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Produced in lab from the gametophytes KU-1128 and KU-1129 (Ec fas CH 92 Nie Z3); *cox3*; cryopreserved.

Strain: KU-1131. **Origin:** Roscoff, France (1993). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Zygote obtained in parallel with Ec Fas Ros 93 31Z7, from Ec fas Ros 93 31. An uncle of Ec Fas Ros 93 31Z7 G9 m and Ec Fas Ros 93 31Z7 G12f (Ec Ros fasfas 31 Z12); *cox3*; cryopreserved. **Reference:** Müller & Eichenberger (1995), Stache-Crain et al. (1997).

Ectocarpus siliculosus (Dillwyn) Lyngbye

Strain: KU-1101. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Zygote obtained from a cross between Ec sil Nap R-B1 m and Ec sil Nap D-A2 f (Ec sil Na RDZ); cryopreserved. **Reference:** Stache-Crain et al. (1997).

Strain: KU-1102. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte (Ec sil Nap D-A2 f); *cox3*; cryopreserved. **Reference:** Stache-Crain et al. (1997).

Strain: KU-1103. **Origin:** Naples, Italy (1959). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte (Ec sil Nap R-B1m); *cox3*; cryopreserved. **Reference:** Müller & Eichenberger (1994).

Strain: KU-1104. **Origin:** Kelly's Island, Newfoundland, Canada (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected diploid sporophyte (Ec sil NFL 31-K1); *cox3*; cryopreserved.

Strain: KU-1105. **Origin:** Newfoundland, Canada (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte derived from a meiospore of Ec sil NFL 31 K1 (Ec sil NFL 31F7m); *cox3*; cryopreserved. **Reference:** Stache-Crain et al. (1997).

Strain: KU-1106. **Origin:** Kelly's Island, Newfoundland, Canada (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte derived from a meiospore of Ec sil NFL 31 K1 (Ec sil NFL 31E3 f); *cox3*; cryopreserved. **Reference:** Müller & Eichenberger (1994).

Strain: KU-1109. **Origin:** Akkeshi, Hokkaido, Japan (1989-7-18). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte derived from a meiospore of Ec sil Jap 16a Sp (Ec sil Jap 16a1 m); *cox3*; cryopreserved. **Reference:** Müller & Kawai (1991), Müller & Eichenberger (1994), Stache-Crain et al. (1997).

Strain: KU-1110. **Origin:** Akkeshi, Hokkaido, Japan (1989-7-18). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte derived from a meiospore of Ec sil Jap 16a Sp (Ec sil Jap 16a 8 f); cryopreserved. **Reference:** Müller & Kawai (1991), Müller & Eichenberger (1994).

Strain: KU-1111. **Origin:** Akkeshi, Hokkaido, Japan (1989-7-18). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Zygote obtained through a cross between Ec sil Jap 16 a1 m and Ec sil Jap 16a 8 f (Ec sil Jap 16 Z1); *cox3*; cryopreserved. **Reference:** Müller & Kawai (1991), Müller & Eichenberger (1994).

Strain: KU-1112. **Origin:** Victoria, Australia (1988-12-15). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** zygote obtained from a cross between Ec sil Vic 88-12-15 f and Ec sil Vic 88-12-11 m (Ec sil VicVic Z1); *cox3*; cryopreserved.

Strain: KU-1327. **Origin:** Bergen, Blomsterdalen, Norway (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte, not virus-infected. Epiphyte on *Ascophyllum nodosum* (Ec sil Ber 21 f). **Reference:** Müller & Eichenberger (1994).

Strain: KU-1330. **Origin:** Beaufort, NC, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte on mud, intertidal (Ec sil Bft 15b m); *cox3*; cryopreserved.

Strain: KU-1332. **Origin:** La Caldera, Coquimbo, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Diploid sporophyte; epiphytic on *Gracilaria* sp. (Ec sil CH 91 Coq 6A); *cox3*; cryopreserved.

Strain: KU-1336. **Origin:** Porto Sannazzaro, Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte (Ec sil Na 112 f); *cox3*; cryopreserved.

Strain: KU-1342. **Origin:** Puente La Union, Puyuhuapi, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** together with *Adenocystis* sp., intertidal, sporophyte (Ec sil CH Puy Sp); *cox3*; cryopreserved.

Strain: KU-1343. **Origin:** Copenhagen, Hvidøre, Denmark (1979). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** lab-produced female gametophyte derived from a meiospore produced by the field-collected sporophyte Ec sil Cph 40a, base of *Rasmussen monument*, on large masses of drift (Ec. Sil. Cph 40-1 f); *cox3*; cryopreserved.

Strain: KU-1344. **Origin:** Porto Sannazzaro, Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Ec sil Na 108 f); *cox3*; cryopreserved.

Strain: KU-1345. **Origin:** Crystal Beach, Tampa Bay, FL, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte; entangled in reed (Ec sil Tam 18b f); *cox3*; cryopreserved.

Strain: KU-1348. **Origin:** Woods Hole, MA, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte; intertidal, on *Chordaria flagelliformis* (Ec sil Pen 10b m); *cox3*; cryopreserved.

Strain: KU-1349. **Origin:** Las Grutas, Bahia Blanca, Argentina (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On drifting *Dictyota* sp., field-collected female gametophyte, shifted to a parthenosporophyte in culture (Ec sil AR 09-4f).

Strain: KU-1352. **Origin:** Beaufort, NC, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte (Ec sil Bft 1a f); *cox3*; cryopreserved.

Strain: KU-1355. **Origin:** Tromsø, Norway (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte (Ec. Sil Tro 2b f); *cox3*; cryopreserved. **Reference:** Müller & Eichenberger (1994).

Strain: KU-1361. **Origin:** Castletown, Isle of Man, UK (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte; epiphytic on *Scytosiphon* sp. (Ec sil Man 14a m); cryopreserved.

Strain: KU-1362. **Origin:** La Pasada, Maullin, Puerto Montt, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal rock, sporophyte (Ec CH sil 19 a); cryopreserved.

Strain: KU-1363. **Origin:** Tampa Bay, Cockroach Bay, FL, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte; entangled between drifting wood (Ec sil Tam 12b m); *cox3*; cryopreserved.

Strain: KU-1364. **Origin:** (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Zygote produced from a cross between Ec sil SAf 28-1 G 13m and Ec sil SAf 28-1 G 15 f (Ec. Sil SAf 28-1-z2); *cox3*; cryopreserved.

Strain: KU-1369. **Origin:** Penikese Island Woods Hole, MA, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte; intertidal, on *Chordaria flagelliformis* (Ec sil Pen 5a f); cryopreserved.

Strain: KU-1371. **Origin:** San Juan de Marcona, Peru (1988). **Leg./Isol.** A. Peters. **Culture:** PESI; 10°C. **Note:**

Female gametophyte, meiotic offspring of a field sporophyte, sexually compatible strain of genome sequencing strain (Esil 25 f). **Reference:** Cock et al. (2010).

Strain: KU-1372. **Origin:** San Juan de Marcona, Peru (1988). **Leg./Isol.** A. Peters. **Culture:** PESI; 10°C. **Note:** Male gametophyte, meiotic offspring of a field sporophyte, genome sequencing strain (Esil 32 m); *cox3*. **Reference:** Cock et al. (2010).

Strain: KU-1424. **Origin:** Fishery Harbour, Villa grecque, Villefranche-sur-mer, France (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte (Ec sil VF 18f); *cox3*; cryopreserved.

Strain: KU-1433. **Origin:** Porto Sannazzaro, Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte (Ec sil Na 70 m); *cox3*; cryopreserved.

Strain: KU-1434. **Origin:** Porto Sannazzaro, Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** *cox3*; cryopreserved.

Strain: KU-1435. **Origin:** Friedrichsort, near Kiel, Baltic Sea, Germany (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte derived from a meiospore of Ec sil Kiel 95-1 Sp, 2m deep (Ec sil Na 164 m); *cox3*; cryopreserved.

Strain: KU-1436. **Origin:** Port St Mary, Isle of Man, Irish Sea (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte, epilithic, tide pool (Ec sil Man 3c f); *cox3*; cryopreserved.

Strain: KU-1442. **Origin:** Penikese Island Woods Hole, MA, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte; intertidal, on *Chordaria flagelliformis* (Ec sil Pen 2a m); *cox3*.

Strain: KU-1443. **Origin:** Port Aransas Marine Station, Boat Harbor, University of Texas, TX, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte; all strains numbered Ec sil PAr 8 to Ec sil PAr 22 are parallel isolates from the same collection site, intertidal on rock (Ec sil PAr 14b m); *cox3*; cryopreserved.

Strain: KU-1444. **Origin:** Port Aransas Marine Station, Boat Harbor, University of Texas, TX, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte, all strains numbered Ec sil PAr 8 to Ec sil PAr 22 are parallel isolates from the same collection site, intertidal on rock (Ec sil PAr 12p f); *cox3*; cryopreserved.

Strain: KU-1710. **Origin:** Wrightsville Beach, Wilmington, NC, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Derives from a field-collected sporophyte Ec sil Wil 17 S (Ec sil Wil 17a f). **Reference:** Stache-Crain et al. (1997).

Strain: KU-1711. **Origin:** Wrightsville Beach, Wilmington, NC, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Derives from a field-collected sporophyte Ec sil Wil 18 S (Ec sil Wil 18a m); *cox3*.

Strain: KU-1712. **Origin:** Villefranche-sur-Mer, France (1971). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte (Ec sil VF 01 m). **Reference:** Müller & Eichenberger (1994)

Strain: KU-1713. **Origin:** Villefranche-sur-Mer, France (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte (Ec sil VF 05 f).

Strain: KU-1714. **Origin:** Villefranche-sur-Mer, France (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected female gametophyte (Ec sil VF 29 f).

Strain: KU-1717. **Origin:** Copenhagen, Hvidøre, Denmark (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Lab-produced male gametophyte derived from a meiospore produced by the field-collected sporophyte Ec sil Cph 40a on large masses of drift (Ec sil Cph 40-11 m); *cox3*.

Strain: KU-1720. **Origin:** Roscoff, France (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Lab-obtained sporophyte deriving from gametophytes obtained from a field-collected sporophyte, 20 m deep, epilithic on stone (Ec sil Ros Z 35-4). **Reference:** Stache-Crain et al. (1997).

Strain: KU-1724. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Tetraploid heterozygous obtained from a cross between (2n) Ec sil Nap RB1 and (2n) Ec sil Nap D-A2 (Ec sil Na TH-4). **Reference:** Müller & Eichenberger (1994).

Strain: KU-1725. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:**

Tetraploid heterozygous obtained from a cross between (2n) Ec sil Nap RB1 and (2n) Ec sil Nap D-A2 (Ec sil Na TH-7). **Reference:** Müller & Eichenberger (1994).

Strain: KU-1726. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Triploid heterozygous obtained from a cross between (n) Ec sil Nap D-A2 f and (2n) Ec sil Nap R-B1 m (Ec sil Na Tri M-1). **Reference:** Stache-Crain et al. (1997).

Strain: KU-1727. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Triploid heterozygous obtained from a cross between (2n) Ec sil Nap D-A2 f and (n) Ec sil Nap R-B1 m (Ec sil Na Tri F-3). **Reference:** Stache-Crain et al. (1997).

Strain: KU-1752. **Origin:** Crystal Beach, Tampa Bay, FL, USA (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte; entangled in reed (Ec sil Tam 19c m); *cox3*.

Strain: KU-1761. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Zygote produced from a cross between a female and a male gametophyte belonging to the Ec sil Na RBZ and Ec sil CHCH Z9 lineages, respectively; reciprocal cross compared to Ec sil CHNA Z113 (Ec sil NaCH Z2). **Reference:** Stache-Crain et al. (1997).

Strain: KU-1763. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Zygote produced from a cross between Ec sil Nap D-A2 f and Ec sil Na 164 m (Ec sil NANA Z6). **Reference:** Stache-Crain et al. (1997).

Strain: KU-1851. **Origin:** Naples, Italy (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Zygote derived from gametophytes produced by unilocs of Ec sil Na RDZ (Ec sil Na RDZ U93 1 Z 94).

Strain: KU-2296. **Origin:** Villefranche-sur-Mer, France (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Field-collected male gametophyte (Ec sil VF 27 m). **Reference:** Müller & Eichenberger (1994).

Elachista stellaris Areschoug

Strain: KU-1113. **Origin:** Cap d'Aille, Villefranche, France (1980-9-2). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** 30 m deep on *Nereia filiformis* (Elach VF1); *cox3*.

Strain: KU-1198. **Origin:** Fuerteventura, Lanzarote, Canary Islands, Spain (1991-9-30). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Dredged from 60 m deep (Elach stel CI 47-b1); *cox3*; cryopreserved.

Endarachne binghamiae J. Agardh

Strain: KU-1114. **Origin:** Antofagasta, Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (End bing Antof 10); *cox3*; cryopreserved.

Eudesme virescens (Carmichael ex Berkeley) J. Agardh

Strain: KU-254. **Origin:** Roscoff, France (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (EUV-1); *cox3*; cryopreserved.

Strain: KU-447. **Origin:** Akkeshi, Hokkaido, Japan (1983-6-27). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (EV-2); *cox3*; cryopreserved. **Reference:** Kawai (1986).

Feldmannia globifera (Kützinger) G. Hamel

Strain: KU-1124. **Origin:** Brannock Island, Aran Islands, Ireland (1990-9-23). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal (Feld glob Aran 38-1); *cox3*; cryopreserved.

Strain: KU-1200. **Origin:** Las Grudas, Argentina (1995-1-27). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift on *Asperococcus* (Feld glob AR 08-6); *cox3*; cryopreserved.

Feldmannia irregularis (Kützinger) G. Hamel

Strain: KU-1197. **Origin:** Isla Hierro, Canary Islands, Spain (1991-10-3). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Near light house, intertidal on *Codium adherens* without symptom (Feld irr CI 61-1 n); *cox3*; cryopreserved.

Strain: KU-1201. **Origin:** Reunion Rock, Isipingo Beach, Durban, South Africa (1993-7-24). **Leg./Isol.** D.G.

Müller. **Culture:** PESI; 10°C. **Note:** Tide pool on *Gelidium* sp. (Feld irr SAF 43-2); *cox3*; cryopreserved.

Strain: KU-1207. **Origin:** Kurakakejima Isl., Hyogo, Japan (1993-8-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On *Spathoglossum pacificum* (Feld irr Jap 53-2); *cox3*; cryopreserved.

Strain: KU-1211. **Origin:** Pangal, Robison Crusoe, Juan Fernandez, Chile (1991-2-1). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On *Codium fernandezianum* (Feld irr RC 3-1).

Feldmannia simplex (P.L. Crouan et H.M. Crouan) G. Hamel

Strain: KU-1123. **Origin:** Portdeha, Aran Islands, Ireland (1990-9-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Feld simp Aran12-6n); cryopreserved. **Reference:** Müller & Eichenberger (1994).

Strain: KU-1199. **Origin:** Las Grutas, Argentina (1995-1-27). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Epiphytic on drift *Dictyota* sp. (Feld simp AR 06-5); *cox3*; cryopreserved.

Strain: KU-1206. **Origin:** Port Elizabeth, South Africa (1993-7-21). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Tide pool, on *Codium duthieae* (Feld simp SAf 36-1); cryopreserved.

Geminocarpus geminatus (J.D. Hooker et Harvey) Skottsberg

Strain: KU-1122. **Origin:** Tierra del Fuego, Porvenir, Chile (1986-2). **Leg./Isol.** C. Wiencke/D.G. Müller. **Culture:** PESI; 10°C. **Note:** Included in *Desmarestia* sp. raw culture (Gemino Por1); *cox3*.

***Gononema* sp.**

Strain: KU-1121. **Origin:** Puerto Williams, Chile (1988-3-3). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Epiphytic on *Adenocystis utricularis* (Gono PW d); *cox3*.

Halopteris congesta (Reinke) Sauvageau

Strain: KU-1120. **Origin:** South Beach, Kaikoura, New Zealand (1981-9-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Sporophyte forming unilocs (Hal con Kai Sp c).

Halopteris flicina (Grateloup) Kützing

Strain: KU-690. **Origin:** Kuroshima, Yamaguchi, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (HF-2); *cox3*; cryopreserved. **Reference:** Kawai & Prud'homme van Reine (1998).

Strain: KU-1119. **Origin:** Fuerteventura, Canary Islands, Spain (1991-10-11). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Dredged from 16m deep, from unizoids, seamount at 20°11.44N 14.47.05W (Hal fil CI 123-2); cryopreserved.

Halopteris paniculata (Suhr) Prud'homme van Reine

Strain: KU-1117. **Origin:** South Beach, Kaikoura, New Zealand (1981-9-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Forming unilocular sporangia (Hal pan a2 Sp); *cox3*; cryopreserved.

Heteroralsia saxicola (Okamura et Yamada) Kawai

Strain: KU-882. **Origin:** Ohma, Aomori, Japan (1985-5-8). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (GS-3). **Reference:** Kawai (1989); Lim et al. (2007).

Hincksia conifera (Børgesen) I.A. Abbott

Strain: KU-1180. **Origin:** Tarumi, Kobe, Japan (1993-8-5). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** *cox3*; cryopreserved.

Hincksia granulosa (Smith) P.C. Silva

Strain: KU-1225. **Origin:** La Pasada, Maullin, Chile (1997-1). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Low intertidal (Giff gran CH 97-13-2).

Strain: KU-1226. **Origin:** Inis Oirr, Galway, Ireland (1996-8-23). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C.

Note: Drift on *Saccorhiza* blade, west coast (Giff gran Irl 96-24-1).

Strain: KU-1184. **Origin:** Arinaga, Gran Canaria, Canary Islands, Spain (1993-2-24). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Tide pool, on *Codium* sp. (Giff conif CI 141-1); *cox3*.

Hincksia hincksiae (Harvey) P.C. Silva

Strain: KU-1224. **Origin:** Plouescat, Roscoff, France (1993-3-27). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On old *Laminaria* blade (Giff hinck Ros 93-23-2n).

Hincksia intermedia (Rosenvinge) P.C. Silva

Strain: KU-1185. **Origin:** Lanzarote North, Canary Islands, Spain (1994-11). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Dredged from 32m on *Lobophora* sp. (Giff inter CI 222-2); *cox3*; cryopreserved.

Hincksia mitchelliae (Harvey) P.C. Silva

Strain: KU-1173. **Origin:** Maruyama, Awaji Isl., Hyogo, Japan (1993-8-28). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift on *Zostera* leaves (Giff mitch Jap 61-1); *cox3*; cryopreserved.

Strain: KU-1181. **Origin:** Ballito, Natal, South Africa (1993-7-26). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal, swimming pool on rocks, with virus symptoms (Giff mitch SAF 59-1); *cox3*; cryopreserved.

Strain: KU-1193. **Origin:** Isla Santa Clara, Juan Fernandez, Chile (1991-2-4). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On *Codium fernandezianum*, at 5 m deep on anchor (Giff mitch SC 39-1); *cox3*; cryopreserved.

Strain: KU-1195. **Origin:** Radio Isl., Beaufort, NC, USA (1963-5-15). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Sporophyte constructed from field-collected gametophyte in laboratory (Giff mitch BNC Sp 91-a); *cox3*; cryopreserved. **Reference:** Müller & Eichenberger (1994).

Strain: KU-1221. **Origin:** Naples, Italy (1983). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Giff mitch Nap 1). **Reference:** Müller & Eichenberger (1994).

Strain: KU-1223. **Origin:** Radio Island, NC, Beaufort, USA (1963). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Gametophyte (Giff mitch Gam).

Hincksia onslowensis (Amsler et Kapraun) P.C. Silva

Strain: KU-1186. **Origin:** Las Grutas, Argentina (1995-1-27). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On *Polysiphonia* sp., drift (Giff onslow AR 05-3); *cox3*; cryopreserved.

Strain: KU-1194. **Origin:** Sardina del Norte, Canary Islands, Spain (1991-10-8). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Dredged from 20 m deep on *Sporochnus boleanus* (Giff onslow CI 94-4); *cox3*; cryopreserved.

Hincksia ovata (Kjellman) P.C. Silva

Strain: KU-1190. **Origin:** Easter Island, Chile (1987-1-22). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Anakena Beach, 1 m deep, on *Dasya* sp. (Giff ov IP 12-2); *cox3*; cryopreserved.

Strain: KU-1222. **Origin:** Langstone Harbour, Portsmouth, England, UK (1983-8-28). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On *Cladostephus verticillatus* (Giff ov 1 LH); cryopreserved.

Hincksia sandriana (Zanardini) P.C. Silva

Strain: KU-1172. **Origin:** Hougham Park, Port Elizabeth, South Africa (1993-7-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Mariculture facility on *Gracilaria* sp.; diploid field-collected sporophyte (Giff sand SAF 28-2); *cox3*; cryopreserved.

Strain: KU-1182. **Origin:** Las Grutas, Argentina (1991-1-27). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift on *Asperococcus* (Giff sand AR 08-4); *cox3*; cryopreserved.

Strain: KU-1191. **Origin:** Naples, Italy (1971-3-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Grand Hotel (Giff sand Na 5); cryopreserved.

Hincksia sp.

Strain: KU-1183. **Origin:** Tarumi, Kobe, Hyogo, Japan (1993-8-5). **Leg./Isol.** H. Kawai/D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Giff Jap 56-1); *cox3*; cryopreserved.

Ishige okamurae Yendo

Strain: KU-252. **Origin:** Shimoda, Shizuoka, Japan (1989-7). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Isolated from unizoid (ISG-1).

Kuetzingiella battersii (Bornet ex Sauvageau) Kornmann

Strain: KU-1187. **Origin:** Punta Jandia, Fuerteventura, Canary Isl., Spain (1991-9-27). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** 20 m deep by scuba on rotten *Padina* sp. (Kuetz bat CI 8-2); *cox3*.

Strain: KU-1192. **Origin:** Bahia del Pardre, Robison Crusoe Isl., Juan Fernandez, Chile (1991-2-5). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal (Kuetz bat RC 27-2); *cox3*; cryopreserved.

Laminaria hyperborea (Gunnerus) Foslie

Strain: KU-1232. **Origin:** Roscoff, France (1989-9-14). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift, male gametophyte (Lam hyp Ros 12-1 m).

Strain: KU-1233. **Origin:** Roscoff, France (1989-9-14). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift, female gametophyte (Lam hyp Ros 12-2 f).

Laminaria pallida Greville

Strain: KU-1234. **Origin:** Cape Town, Olifant's Bay, South Africa (1993-7-14). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift, female gametophyte (Lam pal SAF 11-1 f).

Strain: KU-1235. **Origin:** Cape Town, Olifant's Bay, South Africa (1993-7-14). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift, male gametophyte (Lam pal SAF 11-3 m).

Laminarionema elsbetiae Kawai et Tokuyama

Strain: KU-356. **Origin:** Helgoland, Germany (1994-5). **Leg./Isol.** A. Peters. **Culture:** PESI; 10°C. **Note:** (LAE); *cox3*. **Reference:** Peters & Burkhardt (1998).

Leptonematella fasciculata (Reinke) P.C. Silva

Strain: KU-94. **Origin:** Rishiri Isl., Hokkaido, Japan (1990). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** *cox3*; cryopreserved.

Lessonia corrugata Lucas

Strain: KU-1274. **Origin:** Safety Cove, Tasmania, Australia (1984-9-5). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On rock, upper subtidal (Less cor Tas 5-3 m).

Strain: KU-1275. **Origin:** Safety Cove, Tasmania, Australia (1984-9-5). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On rock, upper subtidal (Less cor Tas 5-1 f).

Lessonia nigrescens Bory de Saint-Vincent

Strain: KU-1272. **Origin:** Isla Santa Maria, Antafagasta, Chile (1987-1-10). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal (Less nig Anto 87-1 m).

Strain: KU-1273. **Origin:** Isla Santa Maria, Antofagasta, Chile (1987-1-10). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal (Less nig Anto 87-1 f).

Lessonia variegata J. Agardh

Strain: KU-1270. **Origin:** Kaikoura, Pt. Kean, New Zealand (1988-8-21). **Leg./Isol.** D.G. Müller. **Culture:** PESI;

10°C. **Note:** Drift (Less var NZ 88-12 f).

Strain: KU-1271. **Origin:** Kaikoura, Pt. Kean, New Zealand (1988-8-21). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift (Less var NZ 88-11 m); *cox3*.

Macrocystis angustifolia Bory de Saint-Vincent

Strain: KU-1280. **Origin:** Long Beach, Cape Town, South Africa (1989-7-13). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte (Mac ang Saf 15-1 f); *cox3*.

Macrocystis integrifolia Bory de Saint-Vincent

Strain: KU-220. **Origin:** Bamfield, Vancouver Isl., BC, Canada (unknown). **Leg./Isol.** E. Henry. **Culture:** PESI; 10°C.

Macrocystis pyrifera (Linnaeus) C. Agardh

Strain: KU-1268. **Origin:** South Beach, Kaikoura, New Zealand (1981-9-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Tide pool, male gametophyte (Mac pyr NZ-3 m).

Strain: KU-1269. **Origin:** South Beach, Kaikoura, New Zealand (1981-9-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Tide pool (Mac pyr NZ-2 f).

Strain: KU-1276. **Origin:** Niebla, La Mision, Valdivia, Chile (1984-1-5). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On rock, and drift, female gametophyte (Mac pyr CH Nie 13-5 f).

Strain: KU-1277. **Origin:** Niebla, La Mision, Valdivia, Chile (1984-1-5). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On rock, and drift, male gametophyte (Mac pyr Tas 8-3 m).

Strain: KU-1282. **Origin:** Puerto Madryn, Argentina (1995-1-29). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift, male gametophyte (Mac pyr AR 20-1 m).

Strain: KU-1283. **Origin:** Puerto Madryn, Argentina (1995-1-29). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Drift, female gametophyte (Mac pyr AR 20-2 f).

Melanosiphon intestinalis (Saunders) Wynne

Strain: KU-259. **Origin:** Abashiri, Hokkaido, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** [MI-5] *cox3*; cryopreserved.

Nemacystus nova-zelandiae Kylin

Strain: KU-1174. **Origin:** Hanga Piku, Easter Island, Chile (1988-2-18). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** On *Sargassum skottsbergii* (Nema Nz IP 1 a1, Nema IP88-25). *cox3*. **Reference:** Ramirez & Müller (1991).

Nereocystis leutkeana (K. Mertens) Postels et Ruprecht

Strain: KU-466. **Origin:** Friday Harbor, WA, USA (1996-4-24). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; cryopreserved.

Padina crassa Yamada

Strain: KU-1073. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2004). **Leg./Isol.** T. Shimono. **Culture:** PESI; 10°C.

Padina fernandeziana Skottsberg et Levring

Strain: KU-1175. **Origin:** Puerto Frances, Robison Crusoe, Juan Fernandez, Chile (1991-2-7). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal between bolders (Padina fern RC 61-9).

Pachydictyon coriaceum (Holmes) Okamura

Strain: KU-959. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-7-29). **Leg./Isol.** T. Shimono. **Culture:** PESI; 10°C. **Note:** *cox3*.

Petalonia zosterifolia (Reinke) Kuntze

Strain: KU-260. **Origin:** Shikabe, Hokkaido, Japan (1986-3-4). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (MI-P2); *cox3*; cryopreserved. **Reference:** Kogame & Kawai (1993).

Phaeophysema sphaerocephala (Yamada) A. Tanaka, S. Uwai et H. Kawai [= *Leathesia sphaerocephala* Yamada]

Strain: KU-67. **Origin:** Akkeshi, Hokkaido, Japan (1999-7-19). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Epiphytic on *Cystoseira hakodatensis*; SAP088680; *rbcL-rbcS* spacer, *tufA*, ITS2. **Reference:** Tanaka et al. (2010).

Phaeostrophion irregularis Setchell et Gardner

Strain: KU-307. **Origin:** Strawberry Hill, OR, USA (1996-4). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Isolated from unizoid, intertidal; *cox3*; cryopreserved. **Reference:** Kawai et al. (2005).

Pilayella littoralis (Linnaeus) Kjellman

Strain: KU-1300. **Origin:** Helgoland, Germany (1956-3-19). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Pil Hel); *cox3*. **Reference:** Müller & Stache (1989).

Strain: KU-1302. **Origin:** Friday Harbor, WA, USA (1992-7). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Pil Wash 92-6).

Strain: KU-1303. **Origin:** Savoonga, St. Lawrence Isl., AK, USA (1996-8-5). **Leg./Isol.** H. Kawai/D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal, rock platforms (Pil BS 3-2n). **Reference:** Maier et al. (1998).

Pseudochorda gracilis Kawai et Nabata

Strain: KU-251. **Origin:** Isoya, Hokkaido, Japan (1986-12-5). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** **Reference:** Kawai & Nabata (1990).

Strain: KU-469. **Origin:** Isoya, Hokkaido, Japan (1986-12-5). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte (PG-2); cryopreserved. **Reference:** Kawai & Nabata (1990).

Strain: KU-485. **Origin:** Isoya, Hokkaido, Japan (1986-12-5). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte (PG-3). **Reference:** Kawai & Nabata (1990).

Strain: KU-732. **Origin:** Isoya, Hokkaido, Japan (1986-12-5). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte, clonal; cryopreserved. **Reference:** Kawai & Nabata (1990).

Saccharina angustata (Kjellman) Lane, Mayes, Druehl et Saunders [= *Laminaria angustata* Kjellman]

Strain: KU-1628. **Origin:** Muroran, Hokkaido, Japan (2000-4-11). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PESI; 10°C. **Note:** [HOK-148]; *cox3*.

Saccharina japonica (Areschoug) Lane, Mayes, Druehl et Saunders [= *Laminaria japonica* Areschoug]

Strain: KU-508. **Origin:** Muroran, Hokkaido, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *cox3*; cryopreserved.

Strain: KU-511. **Origin:** Muroran, Hokkaido, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *cox3*; cryopreserved.

Strain: KU-1627. **Origin:** Muroran, Hokkaido, Japan (2000-5-18). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PESI; 10°C. **Note:** [HOK-147]; *cox3*.

Saccharina latissima (Linnaeus) Lane, Mayes, Druehl et Saunders [= *Laminaria saccharina* (Linnaeus) J.V. Lamouroux]

Strain: KU-1230. **Origin:** Helgoland, Germany (1969-1-8). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:**

Northwest terrace, female gametophyte (Lam sacch Hel 1 f).

Strain: KU-1231. **Origin:** Helgoland, Germany (1969-1-8). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Northwest terrace, male gametophyte (Lam sacch Hel 1 m).

Saccharina sculpera (Miyabe) Lane, Mayes, Druehl et Saunders [= *Kjellmaniella crassifolia* Miyabe]

Strain: KU-196. **Origin:** Muroran, Hokkaido, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *cox3*.

Strain: KU-354. **Origin:** Muroran, Hokkaido, Japan (1985-12). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Female gametophyte.

Strain: KU-1629. **Origin:** Muroran, Hokkaido, Japan (2000-9-9). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PESI; 10°C. **Note:** [HOK-149]; *cox3*.

Saccorhiza dermatodea (Bachelot de la Pylaie) Areschoug

Strain: KU-1305. **Origin:** St. Johns, Newfoundland, Canada (1981-4-17). **Leg./Isol.** R. Bugellen/D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Sacc derm NFL 15).

Saccorhiza polyschides (Lightfoot) Batters

Strain: KU-1306. **Origin:** Roscoff, France (1989-9-14). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Sacc poly Ros 13-1 f).

Strain: KU-1307. **Origin:** Roscoff, France (1989-9-14). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** (Sacc poly Ros 13-2 m).

Saundersella simplex (Saunders) Kylin

Strain: KU-446. **Origin:** Hanasaki, Hokkaido, Japan (1980-8-24). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Gametophyte (SS-2); *cox3*; cryopreserved.

Scytosiphon canaliculatus (Setchell et Gardner) Kogame

Strain: KU-263. **Origin:** Oshoro, Hokkaido, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Sporophyte (SCY-5).

Scytosiphon lomentaria (Lyngbye) Link

Strain: KU-268. **Origin:** Bergen, Norway (1985-8). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Sporophyte (SCY-1).

Spatoglossum crassum J. Tanaka

Strain: KU-256. **Origin:** Shimoda, Shizuoka, Japan (1990-7). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Acidic.

Spatoglossum pacificum Yendo

Strain: KU-961. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-4-12). **Leg./Isol.** T. Shimono. **Culture:** PESI; 10°C.

Sphacelaria plumigera Holmes ex Hauck

Strain: KU-687. **Origin:** Akkeshi, Hokkaido, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (SPP-1); *cox3*; cryopreserved.

Sphacelaria sp.

Strain: KU-221. **Origin:** Marine Gardens, OR, USA (1991-1-27). **Leg./Isol.** E. Henry. **Culture:** PESI; 10°C.

Sphaerotrichia divaricata (C. Agardh) Kylin

Strain: KU-459. **Origin:** Kurahashi Isl., Hiroshima, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Gametophyte (SD-11); *cox3*; cryopreserved. **Reference:** Kim, Peters & Kawai (2003).

Splachnidium rugosum (Linnaeus) Greville

Strain: KU-1176. **Origin:** Puerto Ingles, Robison Crusoe, Juan Fernandez, Chile (1991-2-2). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Intertidal (Spla RC 21-1); *cox3*.

Sporochnus bolleanus Montagne

Strain: KU-1178. **Origin:** Lanzarote, Playa Blanca, Canary Islands, Spain (1991-9-28). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Female gametophyte, 40 m deep by SCUBA (Sporoch boll CI 20-2 f); *cox3*.

Strain: KU-1179. **Origin:** Lanzarote, Playa Blanca, Canary Islands, Spain (1991-9-28). **Leg./Isol.** D.G. Müller. **Culture:** PESI; 10°C. **Note:** Male gametophyte, 40 m deep by SCUBA (Sporoch boll CI 20-3 m); *cox3*.

Stictyosiphon soriferus (Reinke) Rosenvinge

Strain: KU-704. **Origin:** Bergen, Norway (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (SSO-3); *cox3*; cryopreserved.

Strain: KU-707. **Origin:** Portsmouth, UK (unknown). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (SSO-1); *cox3*; cryopreserved. **Reference:** Kawai (1991).

Stypocaulon durum (Ruprecht) Okamura

Strain: KU-692. **Origin:** Abashiri, Hokkaido, Japan (1986-8). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (HS-4). **Reference:** Kawai & Prud'homme van Reine (1998).

Striaria attenuata (Greville) Greville

Strain: KU-708. **Origin:** Obota, Yashiro Isl., Yamaguchi, Japan (1986-5-15). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** Asexual gametophyte (SA-1); *cox3*; cryopreserved.

Taonia atomaria (Woodward) J. Agardh

Strain: KU-1074. **Origin:** Cap Gris Nez, Calais, France (2004). **Leg./Isol.** M. Kamiya. **Culture:** PESI; 10°C. **Note:** *cox3*.

Trachynema groenlandicum (Lund) Pedersen

Strain: KU-706. **Origin:** Muroran, Hokkaido, Japan (1980-5-31). **Leg./Isol.** H. Kawai. **Culture:** PESI; 10°C. **Note:** (LIG-1); *cox3*. **Reference:** Kawai & Kurogi (1983).

Undaria pinnatifida (Harvey) Suringar

Strain: KU-169. **Origin:** Tsurumi, Ooita, Japan (2002-4-26). **Leg./Isol.** T. Goto/S. Uwai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *cox3*; AB213038. **Reference:** Uwai et al. (2006).

Strain: KU-170. **Origin:** Charatsunai, Muroran, Hokkaido, Japan (2001-7-31). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Female gametophyte (HM0107Z-0 f b). **Reference:** Uwai et al. (2006).

Strain: KU-171. **Origin:** Charatsunai, Muroran, Hokkaido, Japan (2001-7-31). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Female gametophyte (HM0107Z-4 f b); *cox3*; AB213030. **Reference:** Uwai et al. (2006).

Strain: KU-172. **Origin:** Tsurumi, Ooita, Japan (2002-4-26). **Leg./Isol.** T. Goto/S. Uwai. **Culture:** PESI; 10°C. **Note:** **Leg./Isol.** T. Goto/S. Uwai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *cox3*; AB213038. **Reference:** Uwai et al. (2006).

Strain: KU-174. **Origin:** Charatsunai, Muroran, Hokkaido, Japan (2001-7-31). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Male gametophyte (HM0107Z-0 m b). **Reference:** Uwai et al. (2006).

Strain: KU-175. **Origin:** Tappi, Aomori, Japan (2002-5-30). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Male

gametophyte; *cox3*; AB213032. **Reference:** Uwai et al. (2006).

Strain: KU-176. **Origin:** Ohma, Aomori, Japan (2002-5-29). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Male gametophyte; *cox3*; AB213030. **Reference:** Uwai et al. (2006).

Strain: KU-177. **Origin:** Tappi, Aomori, Japan (2002-5-30). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *cox3*; AB213032. **Reference:** Uwai et al. (2006).

Strain: KU-178. **Origin:** Ohma, Aomori, Japan (2002-5-29). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** Female gametophyte; *cox3*; AB213030. **Reference:** Uwai et al. (2006).

Vimineoleathesia japonica (Inagaki) A. Tanaka, S. Uwai et H. Kawai [= *Leathesia japonica* Inagaki]

Strain: KU-66. **Origin:** Shimamaki, Hokkaido (2000-4-20). **Leg./Isol.** S. Uwai. **Culture:** PESI; 10°C. **Note:** SAP088679; *rbcL*-*rbcS* spacer, *tufA*, ITS2. **Reference:** Tanaka et al. (2010).

SCHIZOCLADIOPHYCEAE (Sister Taxon of Brown Algae)

Schizocladia ischiensis E.C. Henry, Okuda et Kawai

Strain: KU-333. **Origin:** Ischia Isl., Naples, Italy (1987-10-21). **Leg./Isol.** E. Henry. **Culture:** PES; 10°C. **Note:** Type culture [NIES-1044] [CCMP2287]; 18S rDNA, *rbcL*. **Reference:** Kawai et al. (2003).

RHODOPHYCEAE (Red Algae)

Acanthopeltis hirsuta (Okamura) Shimada, Horiguchi et Masuda

Strain: KU-1522. **Origin:** Oryuzako, Miyazaki, Japan (1993-8-2). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-77]; 18S rDNA, ITS rDNA, *rbcL*.

Actinotrichia fragilis (Forsskål) Børgeesen

Strain: KU-2564. **Origin:** Susaki, Chichijima Isl., Tokyo, Japan (2005-3-16). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-186].

Strain: KU-2565. **Origin:** Susaki, Chichijima Isl., Tokyo, Japan (2005-3-16). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-187].

Strain: KU-2566. **Origin:** Miyanohama, Chichijima Isl., Tokyo, Japan (2005-3-4). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-188].

Strain: KU-2567. **Origin:** Kitakou, Hahajima Isl., Tokyo, Japan (2005-3-8). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-189].

Strain: KU-2568. **Origin:** Kitakou, Hahajima Isl., Tokyo, Japan (2005-3-10). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-190].

Strain: KU-2569. **Origin:** Shirahama, Nishimuro, Wakayama, Japan (2003-4-1). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-191].

Strain: KU-2570. **Origin:** Kasasa, Kawabe, Kagoshima, Japan (2003-2-28). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-192].

Strain: KU-2571. **Origin:** Shirahama, Nishimuro, Wakayama, Japan (2003-4-1). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-193].

Ahnfeltiopsis concinna (J. Agardh) Silva et DeCew

Strain: KU-1585. **Origin:** Oahu Isl., HI, USA (1980-11-17). **Leg./Isol.** M. Kurogi/M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-45] Female gametophyte; *rbcL*.

Strain: KU-1586. **Origin:** Okubo, Miyake Isl., Tokyo, Japan (1982-6-24). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-46] Male gametophyte; *rbcL*.

Strain: KU-1587. **Origin:** Ako, Miyake Isl., Tokyo, Japan (1982-6-23). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-47] Female gametophyte; *rbcL*.

***Ahnfeltiopsis divaricata* (Holmes) Masuda**

Strain: KU-979. **Origin:** Yura, Awaji Isl., Hyogo, Japan (1996-11-24). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15-20°C. **Note:** *rbcL*.

***Ahnfeltiopsis flabelliformis* (Harvey) Masuda**

Strain: KU-1553. **Origin:** Samani, Hokkaido, Japan (1978-4-27). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-13] Male gametophyte.

Strain: KU-1554. **Origin:** Samani, Hokkaido, Japan (1978-4-27). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-15].

Strain: KU-1555. **Origin:** Asamushi, Aomori, Japan (1978-6-29). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-14] Male gametophyte.

Strain: KU-1556. **Origin:** Shimoda, Shizuoka, Japan x Tojima, Ehime, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-16] Hybrid; *rbcL*.

Strain: KU-1558. **Origin:** Nojimasaki, Chiba, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-18] Female gametophyte; *rbcL*.

Strain: KU-1559. **Origin:** Nojimasaki, Chiba, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-19] Female gametophyte.

Strain: KU-1560. **Origin:** Tsuyazaki, Fukuoka, Japan x Nojimasaki, Chiba, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-20] Hybrid; *rbcL*.

Strain: KU-1562. **Origin:** Aomori, Japan x Aomori, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-22] Hybrid; *rbcL*.

Strain: KU-1563. **Origin:** Maizuru, Kyoto, Japan x Tosa, Kochi, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-23] Hybrid; *rbcL*.

Strain: KU-1564. **Origin:** Pusan, Korea (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-24] Male gametophyte; *rbcL*.

Strain: KU-1565. **Origin:** Kawauchi, Kagoshima, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-25] Male gametophyte; *rbcL*.

Strain: KU-1566. **Origin:** Maizuru, Kyoto, Japan x Nojimasaki, Kanagawa, Japan (1982-6-5×1982-11-19). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-26] Hybrid; *rbcL*.

Strain: KU-1567. **Origin:** Jogashima, Shizuoka, Japan (1979-8-9). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-27]; *rbcL*.

Strain: KU-1568. **Origin:** Tsuyazaki, Fukuoka, Japan x Tosa, Kochi, Japan (1981-3-3×1980-7-15). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-28] Hybrid.

Strain: KU-1569. **Origin:** Tsuyazaki, Fukuoka, Japan x Tosa, Kochi, Japan (1981-3-3×1980-7-15). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-29] Hybrid; *rbcL*.

Strain: KU-1570. **Origin:** Uwajima, Ehime, Japan x Tosa, Kochi, Japan (1982-5-22×1980-7-15). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-30] Female gametophyte, hybrid; *rbcL*.

Strain: KU-1571. **Origin:** Hakodate, Hokkaido, Japan x Tojima, Ehime, Japan (1982-2-19×1982-5-21). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-31] Hybrid; *rbcL*.

Strain: KU-1572. **Origin:** Hakodate, Hokkaido, Japan x Tojima, Ehime, Japan (1982-2-19×1982-5-21). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-32] Hybrid; *rbcL*.

Strain: KU-1573. **Origin:** Hakodate, Hokkaido, Japan x Shimoda, Shizuoka, Japan (1982-2-19×1984-6-1). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-33] Hybrid; *rbcL*.

Strain: KU-1574. **Origin:** Usu, Hokkaido, Japan (1981-8-15). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-34] Female gametophyte; *rbcL*.

Strain: KU-1575. **Origin:** Shioyazaki, Fukushima, Japan (1982-3-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-35]; *rbcL*.

Strain: KU-1576. **Origin:** Miyake Isl., Tokyo, Japan x Nojimasaki, Chiba, Japan (1986-6-25×1982-11-19). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-36] Hybrid; *rbcL*.

Strain: KU-1577. **Origin:** Matsumae, Hokkaido, Japan (1984-6-24). **Leg./Isol.** I. Mine/M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-37]; *rbcL*.

Strain: KU-1578. **Origin:** Matsumae, Hokkaido, Japan (1984-6-24). **Leg./Isol.** I. Mine/M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-38]; *rbcL*.

Strain: KU-1579. **Origin:** Shimoda, Shizuoka, Japan (1975-10-6). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-39] Male gametophyte; *rbcL*.

Strain: KU-1580. **Origin:** Shimoda, Shizuoka, Japan (1975-10-6). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-40] Female gametophyte; *rbcL*.

Strain: KU-1581. **Origin:** Shimoda, Shizuoka, Japan (1977-2-4). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-41] Male gametophyte; *rbcL*.

Strain: KU-1582. **Origin:** Tsuyazaki, Fukuoka, Japan (1977-3-2). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-42] Female gametophyte.

Strain: KU-1583. **Origin:** Tsuyazaki, Fukuoka, Japan (1977-3-2). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-43] Female gametophyte; *rbcL*.

Strain: KU-1584. **Origin:** Monbetsu, Hokkaido, Japan (1977-7-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-44] Female gametophyte; *rbcL*.

Ahnfeltiopsis sp.

Strain: KU-1551. **Origin:** Tanesashi, Aomori, Japan (1981-8-5). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-11] Female gametophyte; *rbcL*.

Strain: KU-1552. **Origin:** Tanesashi, Aomori, Japan (1981-8-5). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-12] Female gametophyte; *rbcL*.

Strain: KU-1557. **Origin:** Enoshima, Kanagawa, Japan x Tojima, Ehime, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-17] Hybrid; *rbcL*.

Strain: KU-1561. **Origin:** Bakkai, Hokkaido, Japan (1998-8-25). **Leg./Isol.** M. Masuda. **Culture:** PES; 15-20°C. **Note:** [HOK-21] Female gametophyte; *rbcL*.

Anotrichium tenue (C. Agardh) Nägeli

Strain: KU-278. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Antithamnion nipponicum Yamada et Inagaki

Strain: KU-1001. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-1-22). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C. **Note:** *rbcL*.

Strain: KU-1599. **Origin:** Tarumi, Kobe, Hyogo, Japan (2000-7-17). **Leg./Isol.** H. Kawaguchi/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-114]; *rbcL*.

Antithamnion sp.

Strain: KU-659. **Origin:** Koshien-hama, Nishinomiya, Hyogo, Japan (2002-11-21). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C. **Note:** Tetrasporophyte.

Strain: KU-1168. **Origin:** Villefranche-sur-Mer, France (1973-5-10). **Leg./Isol.** D.G. Müller. **Culture:** PES; 15°C. **Note:** With *Ectocarpus siliculosus* (Anti VF 2 T); *rbcL*.

Asparagopsis armata Harvey [= *Falkenbergia rufolanosa* (Harvey) F. Schmitz]

Strain: KU-1115. **Origin:** Aran Islands, Ireland (1988-9-26). **Leg./Isol.** D.G. Müller. **Culture:** PES; 15°C. **Note:** Tide pool (Fal Aran 88-1); *rbcL*. **Reference:** Sekimoto et al. (2008).

Strain: KU-1196. **Origin:** Isla La Graciosa, Canary Islands, Spain (1991-9-30). **Leg./Isol.** D.G. Müller. **Culture:** PES; 15°C. **Note:** South Beech, 20m deep by scuba on corraline algae (Fal CI 39-1).

Asparagopsis taxiformis (Delile) Trevisan

Strain: KU-984. **Origin:** Saikai-bashi, Oomura Bay, Nagasaki, Japan (2000-3-30). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1292).

Binghamia californica J. Agardh

Strain: KU-916. **Origin:** Iwaya, Awaji Isl., Hyogo, Japan (2001-2-16). **Leg./Isol.** Y. Ushihara/T. Yano. **Culture:** PES; 15°C. **Note:** Gametophyte (Bi-ca-1); *rbcL*.

Strain: KU-917. **Origin:** Iwaya, Awaji Isl., Hyogo, Japan (2001-2-16). **Leg./Isol.** Y. Ushihara/T. Yano. **Culture:** PES; 15°C.

Strain: KU-987. **Origin:** Namikata, Ehime, Japan (2000-6-12). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** Sporophyte; *rbcL*.

Bonnemaisonia hamifera Hariot [= *Trailliella intricata* Batters]

Strain: KU-1177. **Origin:** Punta Jandia, Fuerteventura, Canary Island, Spain (1991-9-26). **Leg./Isol.** D.G. Müller. **Culture:** PES; 15°C. **Note:** 8m deep by scuba on *Stypocaulon* sp.; *rbcL*.

Botryocladia skottsbergii (Børgesen) Levring

Strain: KU-975. **Origin:** Ishigaki Isl., Okinawa, Japan (1998-1-22). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1166).

Catenella opuntia (Goodenough et Woodward) Greville [= *Catenella caespitosa* (Withering) L.M. Irvine]

Strain: KU-974. **Origin:** Isobe-kawa, Ishigaki Isl., Okinawa, Japan (1998-1-23). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1134).

Centroceras clavulatum (C. Agardh) Montagne

Strain: KU-1000. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-1-22). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C.

Ceramium tenerrimum (Martens) Okamura

Strain: KU-989. **Origin:** Okinoerabu Isl., Kagoshima, Japan (2000-5-30). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1324); *rbcL*. **Reference:** Sekimoto et al. (2008)

Champia bifida Okamura

Strain: KU-981. **Origin:** Yura, Awaji Isl., Hyogo, Japan (1999-7-1). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1206).

Chondracanthus intermedius (Suringar) Hommersand

Strain: KU-1047. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-5-14). **Leg./Isol.** A. Kato. **Culture:** PES; 10°C.

Chondracanthus tenellus (Harvey) Hommersand

Strain: KU-918. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-8-27). **Leg./Isol.** T. Yano. **Culture:** PES; 15°C.

Note: Tetrasporophyte (Ch-te-1).

Chondria crassicaulis Harvey

Strain: KU-1056. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2003-7-16). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15°C.

Chondrus giganteus Yendo

Strain: KU-288. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-8-11). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C. **Note:** Tetrasporophyte (HAY-CG-1); *rbcL*.

Strain: KU-289. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-8-11). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C. **Note:** Tetrasporophyte (HAY-CG-2).

Chondrus nipponicus Yendo

Strain: KU-277. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai/S. Kawaguchi. **Culture:** PES; 15°C. **Note:** Tetrasporophyte; *rbcL*.

Coelarthrum muelleri (Sonder) Børgeesen

Strain: KU-972. **Origin:** Shimoda, Shizuoka, Japan (1996-4-3). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1110); *rbcL*.

Cryptonemia luxurians (C. Agardh) J. Agardh

Strain: KU-1600. **Origin:** Namikata, Ehime, Japan (1986-10-9). **Leg./Isol.** H. Kawaguchi/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-115]; *rbcL*.

Dasya sessilis Yamada

Strain: KU-1060. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2003-7-16). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15°C. **Note:** *rbcL*.

Delesseria serrulata Harvey

Strain: KU-971. **Origin:** Shiranuka, Aomori, Japan (1995-3-22). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1081).

Dichotomaria apiculata (Kjellman) Kurihara et Masuda

Strain: KU-2562. **Origin:** Nijigashima, Himi, Toyama, Japan (2001-6-8). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-184].

Dichotomaria falcata (Kjellman) Kurihara et Masuda

Strain: KU-2563. **Origin:** Mugi, Kaifu, Tokushima, Japan (2003-6-4). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-185].

Dichotomaria obtusata (Ellis et Solander) Lamarck

Strain: KU-2557. **Origin:** Atsuta, Nakagusuku, Okinawa, Japan (2002-12-14). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-179].

Strain: KU-2572. **Origin:** Ei, Ibusuki, Kagoshima, Japan (2004-7-4). **Leg./Isol.** H. Shimabukuro/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-194].

Strain: KU-2573. **Origin:** Itoman, Okinawa, Japan (2002-12-15). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-196].

Dichotomaria papillata (Kjellman) Kurihara et Masuda

Strain: KU-2574. **Origin:** Tomioka, Amakusa, Kumamoto, Japan (2002-6-18). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-197].

Strain: KU-2575. **Origin:** Tomioka, Amakusa, Kumamoto, Japan (2002-6-18). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-198].

Strain: KU-2576. **Origin:** Kasasa, Kawabe, Kagoshima, Japan (2003-2-28). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-199].

Strain: KU-2577. **Origin:** Shirahama, Nishimuro, Wakayama, Japan (2003-4-1). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-200].

Dichotomaria sp.

Strain: KU-2618. **Origin:** Higashi-kou, Hahajima Isl., Tokyo, Japan (2005-3-7). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-244].

Strain: KU-2619. **Origin:** Higashi-kou, Hahajima Isl., Tokyo, Japan (2005-3-7). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-246].

Strain: KU-2620. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-3-11). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-247].

Strain: KU-2621. **Origin:** Okinoshima, Tateyama, Chiba, Japan (2003-5-18). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-248].

Strain: KU-2622. **Origin:** Okinoshima, Tateyama, Chiba, Japan (2003-5-18). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-249].

Strain: KU-2623. **Origin:** Okinoshima, Tateyama, Chiba, Japan (2003-5-18). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-250].

Strain: KU-2624. **Origin:** Okinoshima, Tateyama, Chiba, Japan (2003-5-18). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-251].

Strain: KU-2625. **Origin:** Okinoshima, Tateyama, Chiba, Japan (2003-5-18). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-252].

Strain: KU-2628. **Origin:** Kasasa, Kawabe, Kagoshima, Japan (2003-2-28). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-255].

Strain: KU-2629. **Origin:** Okidomari, Okinoerabu Isl., Kagoshima, Japan (2003-6-21). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-257].

Strain: KU-2630. **Origin:** Agarizaki, Yonaguni, Okinawa, Japan (2003-9-27). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-259].

Erythroglossum minimum Okamura

Strain: KU-998. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-1-22). **Leg./Isol.** S. Uwai. **Culture:** PES; 15-20°C. **Note:** *rbcL*.

Galaxaura articulata T. Tanaka

Strain: KU-2578. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-4-17). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-201].

Strain: KU-2579. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-4-17). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-202].

Strain: KU-2580. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-4-17). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-203].

Strain: KU-2581. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-4-17). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-204].

Strain: KU-2582. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-4-17). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-205].

Strain: KU-2583. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-4-17). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-207].

Strain: KU-2584. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-4-20). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-209].

Strain: KU-2585. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-4-20). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-210].

Strain: KU-2586. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-3-11). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-211].

Galaxaura divaricata (Linnaeus) Huisman et Townsend

Strain: KU-2558. **Origin:** Tahama, Haeburu, Okinawa, Japan (2003-9-25). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-180].

Galaxaura latifolia T. Tanaka [= *Galaxaura kjellmanii* Weber van Bosse]

Strain: KU-2587. **Origin:** Shishikui, Kaifu, Tokushima, Japan (2003-6-4). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-212].

Strain: KU-2588. **Origin:** Shishikui, Kaifu, Tokushima, Japan (2003-6-4). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-213].

Galaxaura pacifica T. Tanaka

Strain: KU-2589. **Origin:** kitakou, Hahajima Isl., Tokyo, Japan (2005-3-10). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-214].

Galaxaura rugosa (Ellis et Solander) J.V. Lamouroux

Strain: KU-2601. **Origin:** Shirahama, Nishimuro, Wakayama, Japan (2003-4-1). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-227].

Strain: KU-2602. **Origin:** Shirahama, Nishimuro, Wakayama, Japan (2003-4-1). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-228].

***Galaxaura* spp.**

Strain: KU-2590. **Origin:** Nishiura, Hahajima Isl., Tokyo, Japan (2005-3-11). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-215].

Strain: KU-2591. **Origin:** Kopepehama, Chichijima Isl., Tokyo, Japan (2005-3-16). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-216].

Strain: KU-2592. **Origin:** Higashi-kou, Hahajima, Tokyo, Japan (2005-3-7). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-217].

Strain: KU-2593. **Origin:** Higashi-kou, Hahajima, Tokyo, Japan (2005-3-7). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-218].

Strain: KU-2594. **Origin:** Higashi-kou, Hahajima, Tokyo, Japan (2005-3-7). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-219].

Strain: KU-2595. **Origin:** Anijima, Tokyo, Japan (2005-6-22). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-221].

Strain: KU-2596. **Origin:** Anijima, Tokyo, Japan (2005-6-22). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-222].

Strain: KU-2597. **Origin:** Anijima, Tokyo, Japan (2005-6-22). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C.

Note: [HOK-223].

Strain: KU-2598. **Origin:** Nishiura, Hahajima, Tokyo, Japan (2005-3-10). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-224].

Strain: KU-2599. **Origin:** Nishiura, Hahajima, Tokyo, Japan (2005-3-10). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-225].

Strain: KU-2600. **Origin:** Nishiura, Hahajima, Tokyo, Japan (2005-3-10). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-226].

Strain: KU-2603. **Origin:** Shirahama, Nishimuro, Wakayama, Japan (2003-4-1). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-229].

Strain: KU-2604. **Origin:** Hatsuneura, Chichijima, Tokyo, Japan (2005-5-13). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-230].

Strain: KU-2605. **Origin:** Haemidanohama, Haeburu, Okinawa, Japan (2003-9-25). **Leg./Isol.** S. Arai/ A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-231].

Strain: KU-2606. **Origin:** Haemidanohama, Haeburu, Okinawa, Japan (2003-9-25). **Leg./Isol.** S. Arai/ A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-232].

Strain: KU-2607. **Origin:** Haemidanohama, Haeburu, Okinawa, Japan (2003-9-25). **Leg./Isol.** S. Arai/ A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-233].

Gelidium elegans Kützing

Strain: KU-970. **Origin:** Yura, Awaji Isl., Hyogo, Japan (1996-1-26). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15-20°C. **Note:** *rbcL*; cryopreserved.

Strain: KU-1048. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-5-14). **Leg./Isol.** A. Kato. **Culture:** PES; 15-20°C. **Note:** *rbcL*; cryopreserved.

Strain: KU-1506. **Origin:** Awaji Isl., Hyogo, Japan (1992-5-15). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-60]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1507. **Origin:** Kushimoto, Wakayama, Japan (1995-9-25). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-61]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1508. **Origin:** Fukaura, Aomori, Japan (1994-4-5). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-62]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1509. **Origin:** Hachijojima Isl., Tokyo, Japan (1994-7-8). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-63]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1510. **Origin:** Fukaura, Aomori, Japan (1993-6-19). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-64]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1541. **Origin:** Hinomisaki, Shimane, Japan (1994-11-19). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-1]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1542. **Origin:** Oga, Akita, Japan (1994-4-5). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-2]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1543. **Origin:** Hatijojima Isl., Tokyo, Japan (1994-7-9). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-3]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1544. **Origin:** Shimoda, Shizuoka, Japan (1992-9-24). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-4]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1545. **Origin:** Sanpoku, Niigata, Japan (1994-4-4). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-5]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1546. **Origin:** Hatinohe, Aomori, Japan (1993-6-9). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-6]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1547. **Origin:** Amakusa, Kumamoto, Japan (1993-7-29). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-7]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1548. **Origin:** Kushimoto, Wakayama, Japan (1992-9-28). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-8]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1549. **Origin:** Ise, Mie, Japan (1992-9-25). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-9]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Strain: KU-1550. **Origin:** Awaji Isl., Hyogo, Japan (1992-5-15). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-10]; ITS rDNA. **Reference:** Shimada & Masuda (2004).

Gelidium japonicum (Harvey) Okamura

Strain: KU-1623. **Origin:** Iseki, Tanegashima Isl., Kagoshima, Japan (2000-12-17). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-142]; *rbcL*.

Gelidium koshikianum Shimada, Horiguchi et Masuda

Strain: KU-1614. **Origin:** Osaki, Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-132]; *rbcL*.

Strain: KU-1622. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-17). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-140].

Gelidium pusillum (Stackhouse) Le Jolis

Strain: KU-1524. **Origin:** Omaezaki, Shizuoka, Japan (1992-9-26). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-80]; *rbcL*.

Gelidium tenuifolium Shimada, Horiguchi et Masuda

Strain: KU-1530. **Origin:** Shimoda, Shizuoka, Japan (1995-6-24). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-86]; *rbcL*.

Gelidium sp.

Strain: KU-1612. **Origin:** Anno, Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-129]; *rbcL*.

Gracilaria chilensis C.J. Bird, McLachlan et E.C. Oliveira

Strain: KU-1208. **Origin:** Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PES; 15-20°C. **Note:** Female gametophyte (Grac CH Nie 4f).

Strain: KU-1209. **Origin:** Chile (unknown). **Leg./Isol.** D.G. Müller. **Culture:** PES; 15-20°C. **Note:** Male gametophyte (Grac CH Nie 3m).

Strain: KU-1210. **Origin:** Isla Quirquina, Concepcion, Chile (1988-12-5). **Leg./Isol.** Krister Alveal/D.G. Müller. **Culture:** PES; 15-20°C. **Note:** (Grac CH Con1a T).

Gracilaria salicornia (C. Agardh) Dawson

Strain: KU-2560. **Origin:** Ishigaki Is., Okinawa, Japan (2006-5-20). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-182].

Gracilaria textorii (Suringar) Hariot

Strain: KU-290. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai. **Culture:** PES; 15-20°C. **Note:** Tetrasporophyte; *rbcL*.

Gracilaria sp.

Strain: KU-1593. **Origin:** Ishigaki Is., Okinawa, Japan (2000-9-29). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-106].

Gracilariopsis lemaneiformis (Bory de Saint-Vincent) E.Y. Dawson, Acleto et Foldvik

Strain: KU-986. **Origin:** Four Miles Beach, Santa Cruz, CA, USA (2001-2-5). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15-20°C. **Note:** (MK1297); *rbcL*.

Grateloupia asiatica Kawaguchi et Wang

Strain: KU-1598. **Origin:** Fukutsu, Fukuoka, Japan (1999-4-5). **Leg./Isol.** S. Kawaguchi/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-111]; *rbcL*.

Grateloupia imbricata Holmes

Strain: KU-291. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai/S. Kawaguchi. **Culture:** PES; 15-20°C. **Note:** Tetrasporophyte; *rbcL*.

Grateloupia lanceolata (Okamura) Kawaguchi

Strain: KU-921. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2000-5-13). **Leg./Isol.** T. Yano. **Culture:** PES; 15-20°C. **Note:** Tetrasporophyte; *rbcL*; cryopreserved.

Griffithsia japonica Okamura

Strain: KU-1054. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-7-11). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15-20°C. **Note:** *rbcL*.

Helminthocladia australis Harvey

Strain: KU-1596. **Origin:** Fukutsu, Fukuoka, Japan (1997-5-14). **Leg./Isol.** S. Kawaguchi/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-109]; *rbcL*.

Strain: KU-976. **Origin:** Shirahama, Wakayama, Japan (1998-5-28). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15-20°C. **Note:** (MK1178); *rbcL*.

Strain: KU-2608. **Origin:** Kushimoto, Wakayama, Japan (2003-3-31). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-234].

Strain: KU-2609. **Origin:** Kushimoto, Wakayama, Japan (2003-3-31). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-235].

Strain: KU-2610. **Origin:** Kushimoto, Wakayama, Japan (2003-3-31). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-236].

Herpochondria elegans (Okamura) Itono

Strain: KU-1004. **Origin:** Tateyama, Chiba, Japan (2002-10-29). **Leg./Isol.** H. Kawai/S. Uwai. **Culture:** PES; 15°C. **Note:** Tetrasporophyte (Herp 2 tetra); *rbcL*.

Heterosiphonia pulchra (Okamura) Falkenberg

Strain: KU-1053. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-7-11). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15°C.

Hypnea charoides J.V. Lamouroux

Strain: KU-1057. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2003-7-16). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15-20°C.

Hypnea flexicaulis Yamagishi et Masuda

Strain: KU-1501. **Origin:** Unosaki, Oga, Akita, Japan (1996-9-21). **Leg./Isol.** Y. Yamagishi. **Culture:** PES; 15-

20°C. **Note:** [HOK-52].

Strain: KU-1502. **Origin:** Fukaura, Aomori, Japan (1996-9-23). **Leg./Isol.** Y. Yamagishi. **Culture:** PES; 15-20°C. **Note:** [HOK-53].

Strain: KU-1503. **Origin:** Fukaura, Aomori, Japan (1996-9-23). **Leg./Isol.** Y. Yamagishi. **Culture:** PES; 15-20°C. **Note:** [HOK-54].

Strain: KU-1505. **Origin:** Unosaki, Oga, Akita, Japan (1996-9-22). **Leg./Isol.** Y. Yamagishi. **Culture:** PES; 15-20°C. **Note:** [HOK-58]; *rbcL*.

Strain: KU-1589. **Origin:** Atsumi, Yamagata, Japan (1996-9-21). **Leg./Isol.** Y. Yamagishi. **Culture:** PES; 15-20°C. **Note:** [HOK-49].

Strain: KU-1590. **Origin:** Atsumi, Yamagata, Japan (1996-9-21). **Leg./Isol.** Y. Yamagishi. **Culture:** PES; 15-20°C. **Note:** [HOK-50].

Hypnea japonica T. Tanaka

Strain: KU-1504. **Origin:** Katsuura, Chiba, Japan (1998-3-4). **Leg./Isol.** Y. Yamagishi. **Culture:** PES; 15-20°C. **Note:** [HOK-57].

***Hypnea* sp.**

Strain: KU-1588. **Origin:** Moheji, Hokkaido, Japan (1995-9-11). **Leg./Isol.** K. Kogame/Y. Yamagishi. **Culture:** PES; 15-20°C. **Note:** [HOK-48].

Laurencia brongniartii J. Agardh

Strain: KU-1591. **Origin:** Ei, Kagoshima, Japan (2000-11-24). **Leg./Isol.** H. Shimabukuro/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-103].

Laurencia nipponica Yamada

Strain: KU-985. **Origin:** Charatsunai, Muroran, Hokkaido, Japan (2000-7-31). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1293); *rbcL*.

Laurencia okamurae Yamada

Strain: KU-1050. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2003-6-17). **Leg./Isol.** A. Kato. **Culture:** PES; 15°C. **Note:** *rbcL*.

Leveillea jungermannioides (Hering et G. Martens) Harvey

Strain: KU-1049. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2003-6-17). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15°C.

***Liagora* sp.**

Strain: KU-2626. **Origin:** Bise, Motobu, Okinawa, Japan (2003-2-3). **Leg./Isol.** T. Abe/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-253].

Strain: KU-2627. **Origin:** Bise, Motobu, Okinawa, Japan (2003-2-3). **Leg./Isol.** T. Abe/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-254].

Lomentaria hakodatensis Yendo

Strain: KU-282. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 15-20°C. **Note:** Gametophyte (Lhak A gam 1).

Strain: KU-283. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 15-20°C. **Note:** Gametophyte (Lhak A gam2).

Strain: KU-284. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 15-20°C.

Note: Gametophyte (Lhak A gam 3).

Strain: KU-285. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 15-20°C. **Note:** Gametophyte, (Lhak B gam 1).

Strain: KU-973. **Origin:** Yura, Awaji Isl., Hyogo, Japan (1996-1-29). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15-20°C. **Note:** (MK1113); *rbcL*.

Nemalion vermiculare Suringar

Strain: KU-2611. **Origin:** Rishiri Isl., Hokkaido, Japan (2004-7-29). **Leg./Isol.** T. Abe/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-237].

Strain: KU-2612. **Origin:** Oshoro, Hokkaido, Japan (2004-7-14). **Leg./Isol.** S. Uwai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-238].

Neosiphonia japonica (Harvey) M.S. Kim et I.K. Lee [= *Polysiphonia japonica* Harvey]

Strain: KU-279. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C. **Note:** Tetrasporophyte.

Strain: KU-280. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C. **Note:** Tetrasporophyte.

Strain: KU-281. **Origin:** Nishikihama, Osaka, Japan (2002-10). **Leg./Isol.** A. Miyagawa/S. Uwai. **Culture:** PES; 15°C. **Note:** Male gametophyte.

Neosiphonia savatieri (Hariot) Kim et Lee [= *Polysiphonia savatieri* Hariot]

Strain: KU-1051. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2003-6-17). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15°C. **Note:**; *rbcL*.

Plocamium cartilagineum (Linnaeus) Dixon

Strain: KU-931. **Origin:** Kurahashi Isl., Hiroshima, Japan (2000-6-30). **Leg./Isol.** J.H. Ook/T. Yano. **Culture:** PES; 15°C. **Note:** (A grade/CAR1/ion); *rbcL*. **Reference:** Yano et al. (2004)

Strain: KU-1059. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2003-7-16). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15°C. **Note:** *rbcL*. **Reference:** Yano et al. (2004)

Plocamium ovicornis Okamura

Strain: KU-953. **Origin:** Shirahama, Wakayama, Japan (2001-10-16). **Leg./Isol.** M. Kamiya/T. Yano. **Culture:** PES; 15°C. **Note:** (B grade/ ion); *rbcL*. **Reference:** Yano et al. (2004).

Plocamium recurvatum Okamura

Strain: KU-934. **Origin:** Oohara, Ikuma, Chiba, Japan (2000-5-22). **Leg./Isol.** T. Yano. **Culture:** PES; 15°C. **Note:** (C grade/REC6/ion); *rbcL*. **Reference:** Yano et al. (2004).

Plocamium telfairiae (Hooker et Harvey) Harvey

Strain: KU-940. **Origin:** Yoshio, Katsuura, Chiba, Japan (2000-5-17). **Leg./Isol.** N. Kikuchi/T. Yano. **Culture:** PES; 15°C. **Note:** Gametophyte (C grade/TEL9/ion). **Reference:** Yano et al. (2004).

Strain: KU-944. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-1-29). **Leg./Isol.** T. Yano. **Culture:** PES; 15°C. **Note:** (C grade/TEL9/ion); *rbcL*. **Reference:** Yano et al. (2004).

Strain: KU-982. **Origin:** Okinoerabu Isl., Kagoshima, Japan (2000-5-30). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1276). **Reference:** Yano et al. (2004).

Polyopes lancifolius (Harvey) Kawaguchi et Wang [= *Grateloupia okamurae* Yamada]

Strain: KU-1058. **Origin:** Imagoura, Kasumi, Hyogo, Japan (2003-7-16). **Leg./Isol.** T. Shimono/A. Kato.

Culture: PES; 15°C. **Note:** *rbcL*; cryopreserved.

Polyopes prolifer (Hariot) Kawaguchi et Wang [= *Carpopeltis prolifera* (Hariot) Kawaguchi et Masuda]

Strain: KU-1052. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-5-14). **Leg./Isol.** A. Kato. **Culture:** PES; 15°C. **Note:** *rbcL*.

Polysiphonia senticulosa Harvey

Strain: KU-657. **Origin:** Koshienhama, Nishinomiya, Hyogo, Japan (2002-11-21). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C. **Note:** *rbcL*; cryopreserved. **Reference:** Sekimoto et al. (2008)

Strain: KU-950. **Origin:** Hariohigashi, Sasebo, Nagasaki, Japan (2000-3-30). **Leg./Isol.** T. Yano. **Culture:** PES; 15°C. **Note:** (Po-se-3); *rbcL*; cryopreserved.

Porphyra okamurae Ueda

Strain: KU-1595. **Origin:** Fukutsu, Fukuoka, Japan (1999-12-26). **Leg./Isol.** S. Kawaguchi/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-108] *Conchocelis*-stage; *rbcL*.

Porphyra tenera Kjellman

Strain: KU-1858. **Origin:** Kawaura, Amakusa, Kumamoto, Japan (1999-1-20). **Leg./Isol.** N. Kikuchi. **Culture:** PES; 20°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T1); *ITS1*(AB162695), *RUBISCO* spacer (AB162696). **Reference:** Niwa et al. (2005).

Strain: KU-1859. **Origin:** Tama River, Haneda airport, Tokyo, Japan (2004-10-1). **Leg./Isol.** N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T11).

Strain: KU-1860. **Origin:** Tama River, Tonomachi, Kawasaki, Kanagawa, Japan (2004-10-1). **Leg./Isol.** N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T14).

Strain: KU-1861. **Origin:** Toyo River, Toyohashi, Aichi, Japan (2000-2-26). **Leg./Isol.** N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T5); *ITS1*(AB365998), *rbc* spacer (AB366133), *rbcL* (AB455547). **Reference:** Niwa et al. (2009).

Strain: KU-1862. **Origin:** Rinkai, Edogawa, Tokyo, Japan (2007-3-23). **Leg./Isol.** K. K. Tanaka/N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T30).

Strain: KU-1863. **Origin:** Rinkai, Edogawa, Tokyo, Japan (2007-3-23). **Leg./Isol.** K. Tanaka/N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T31).

Strain: KU-1864. **Origin:** Ichinomiya River, Tyousei, Chiba, Japan (2006-2-20). **Leg./Isol.** N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T34).

Strain: KU-1865. **Origin:** Tama River, Haneda airport, Tokyo, Japan (2006-3-2). **Leg./Isol.** K. Tanaka/N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T35).

Strain: KU-1866. **Origin:** Maihama, Urayasu, Chiba, Japan (2006-3-2). **Leg./Isol.** Y. Shimamura/N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T40).

Strain: KU-1867. **Origin:** Ichinomiya river, Tyousei, Chiba, Japan (2007-2-2). **Leg./Isol.** N. Kikuchi. **Culture:** PES; 15°C. **Note:** Intertidal, brackish, *Conchocelis*-stage (UM-T42).

Porphyra yezoensis Ueda

Strain: KU-1483. **Origin:** Charatsunai, Muroran, Hokkaido, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PES; 15-20°C. **Note:** *Conchocelis*-stage; *rbcL*, rDNA-ITS.

Strain: KU-1488. **Origin:** Iwaya, Awaji Isl., Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PES; 15-20°C. **Note:** *Conchocelis*-stage; *rbcL*, rDNA-ITS.

***Porphyra* sp.**

Strain: KU-1485. **Origin:** Charatsunai, Muroran, Hokkaido, Japan (unknown). **Leg./Isol.** H. Kawai. **Culture:** PES; 15-20°C. **Note:** *Conchocelis*-stage; *rbcL*, rDNA-ITS.

Predaea japonica Yoshida

Strain: KU-1597. **Origin:** Fukutsu, Fukuoka, Japan (1995-6-30). **Leg./Isol.** S. Kawaguchi/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-110]; *rbcL*.

Pterocladia capillacea (Gmelin) Santelices et Hommersand

Strain: KU-1512. **Origin:** Oshoro, Hokkaido, Japan (1992-9-14). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-67]; *rbcL*. **Reference:** Shimada et al. (2000).

Strain: KU-1619. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-134]; *rbcL*.

Pterocladia tenuis (Okamura) Shimada, Horiguchi et Masuda

Strain: KU-1511. **Origin:** Shimoda, Shizuoka, Japan (1992-9-24). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-66]; *rbcL*. **Reference:** Shimada et al. (2000).

***Pterocladia* sp.**

Strain: KU-1615. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-133]; *rbcL*.

Schizymenia dubyi (Chauvin ex Duby) J. Agardh

Strain: KU-977. **Origin:** Maruyama, Awaji Isl. Hyogo, Japan (1996-4-16). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1194); *rbcL*.

***Sciniaia* sp.**

Strain: KU-978. **Origin:** Ihota, Hiroshima, Japan (1997-6-12). **Leg./Isol.** M. Kamiya. **Culture:** PES; 15°C. **Note:** (MK1193); *rbcL*.

Strain: KU-2613. **Origin:** Ushinohama, Akune, Kagoshima, Japan (2003-3-3). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-239].

Strain: KU-2614. **Origin:** Nijigashima, Himi, Toyama, Japan (2001-6-8). **Leg./Isol.** S. Arai/A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-240].

Symphyocladia marchantioides (Harvey) Falkenberg

Strain: KU-999. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-1-22). **Leg./Isol.** S. Uwai. **Culture:** PES; 15°C.

Symphyocladia pumila (Yendo) Uwai et Masuda

Strain: KU-276. **Origin:** Tateyama, Chiba, Japan (2002-10-29). **Leg./Isol.** H. Kawai/S. Uwai. **Culture:** PES; 15°C. **Note:** Male gametophyte (Sy. *pumila* 2).

Strain: KU-653. **Origin:** Tateyama, Chiba, Japan (2002-10-29). **Leg./Isol.** H. Kawai/S. Uwai. **Culture:** PES; 15°C. **Note:** Female gametophyte (Sy. *pumila* 1).

Strain: KU-1055. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2003-7-11). **Leg./Isol.** T. Shimono/A. Kato. **Culture:** PES; 15°C.

Trichogloea requienii (Montagne) Kützing

Strain: KU-2615. **Origin:** Sani, Amamioshima Isl., Kagoshima, Japan (2003-4-22). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-241].

***Tricleocarpa* sp.**

Strain: KU-2616. **Origin:** Touji, Shimoda, Shizuoka, Japan (2001-7-24). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-242].

Strain: KU-2617. **Origin:** Touji, Shimoda, Shizuoka, Japan (2001-7-24). **Leg./Isol.** A. Kurihara. **Culture:** PES; 15-20°C. **Note:** [HOK-243].

CHLOROPHYCEAE (Green Algae)

Blastophysa rhizopus Reinke

Strain: KU-292. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Strain: KU-293. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Strain: KU-294. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Strain: KU-295. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C. **Note:** cryopreserved.

Strain: KU-296. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Strain: KU-297. **Origin:** Shimokamagari Isl., Hiroshima, Japan (2002-8-23). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Strain: KU-1213. **Origin:** Pta. Cook, Easter Island, Chile (1987-1-21). **Leg./Isol.** D.G. Müller. **Culture:** PES; 10°C.

Strain: KU-1214. **Origin:** Isla La Graciosa, Canary Islands, Spain (1991-9-30). **Leg./Isol.** D.G. Müller. **Culture:** PES; 10°C.

Strain: KU-2119. **Origin:** Hydra Isl., Greece (2004-10-15). **Leg./Isol.** D.G. Müller. **Culture:** PES; 10°C.

Blidingia sp.

Strain: KU-1099. **Origin:** Sano, Awaji Isl., Hyogo, Japan (unknown). **Leg./Isol.** T. Hanyuda. **Culture:** PES; 10°C.

Bryopsis plumosa (Hudson) C. Agardh

Strain: KU-272. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C. **Note:** Gametophyte; *rbcL*.

Strain: KU-273. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Strain: KU-274. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Strain: KU-275. **Origin:** Sakoshi, Akou, Hyogo, Japan (2002-10-26). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.

Strain: KU-990. **Origin:** Koshien-hama, Nishinomiya, Hyogo, Japan (2002-11-19). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C. **Note:** Gametophyte; *rbcL*.

Bryopsis sp.

Strain: KU-1624. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** Gametophyte [HOK-143]; *rbcL*.

Caulerpa racemosa (Forsskål) J. Agardh

Strain: KU-1533. **Origin:** Tosashimizu, Kochi, Japan (2000-2-7). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-93].

Chaetomorpha gracilis Kützinger

Strain: KU-2559. **Origin:** Ishigaki Isl., Okinawa, Japan (2006-5-20). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-181].

Codium capitulatum Silva et Womersley

Strain: KU-1523. **Origin:** Kashinoura, Kochi, Japan (1996-5-3). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-78]; *rbcL*.

Codium dimorphum Svedelius

Strain: KU-1531. **Origin:** Nemoto, Chiba, Japan (1996-5-30). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-88]; *rbcL*.

Codium fragile (Suringar) Hariot

Strain: KU-654. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-8-11). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C. **Note:** Gametophyte.

Strain: KU-1519. **Origin:** Tsuyazaki, Fukuoka, Japan (1996-3-12). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-74]; *rbcL*.

Codium hubbsii Dawson

Strain: KU-1518. **Origin:** Tanegashima Isl., Kagoshima, Japan (1996-6-5). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-73].

Strain: KU-1521. **Origin:** Ebisu Isl., Shimoda, Shizuoka, Japan (1997-7-23). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-76]; *rbcL*.

Codium intricatum Okamura

Strain: KU-1520. **Origin:** Tomioka, Fukushima, Japan (1998-6-15). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-75].

Strain: KU-1592. **Origin:** Ishigaki Isl., Okinawa, Japan (2000-9-29). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-105].

Codium lucasii Setchell

Strain: KU-1617. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-136]; *rbcL*.

Codium spongiosum Harvey

Strain: KU-1616. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-135]; *rbcL*.

Codium subtubulosum Okamura

Strain: KU-1527. **Origin:** Tsuyazaki, Fukuoka, Japan (1996-3-12). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-83].

Derbesia marina (Lyngbye) Solier

Strain: KU-1155. **Origin:** Starigrad, Island of Hvar, Croatia (1972-6-20). **Leg./Isol.** D.G. Müller. **Culture:** PES; 10°C. **Note:** On *Dictyota dichotoma*. Laboratory construct: heterozygous sporophyte, (DSG T6 H5 x H2 Sp); *rbcL*.

Polyphysa sp.

Strain: KU-2500. **Origin:** Chichijima Isl., Ogasawara, Tokyo, Japan (unknown). **Leg./Isol.** H. Kawai/T. Yamagishi. **Culture:** PES; 15°C.

Strain: KU-2501. **Origin:** Kakeroma Is., Amami, Kagoshima, Japan (unknown). **Leg./Isol.** Z. Sun/T. Yamagishi. **Culture:** PES; 15°C.

Strain: KU-2502. **Origin:** Kakeroma Is., Amami, Kagoshima, Japan (unknown). **Leg./Isol.** Z. Sun/T. Yamagishi. **Culture:** PES; 15°C.

Pseudocodium okinawense Faye, Uchimura et Shimada

Strain: KU-2561. **Origin:** Awase, Okinawa, Japan (2006-5-14). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-183].

Ulva arasaki Chihara

Strain: KU-1322. **Origin:** cargo carrier vessel (2004-8-1). **Leg./Isol.** T. Hanyuda. **Culture:** PES; 15-20°C. **Note:** Isolated from ballast water.

Ulva compressa Linnaeus [= *Enteromorpha compressa* (Linnaeus) Nees]

Strain: KU-1634. **Origin:** Akaguri, Ohi, Fukui, Japan (2005-4-28). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C.

Ulva fasciata Delile

Strain: KU-1539. **Origin:** Naruto, Tokushima, Japan (1995-10-24). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-99] Male gametophyte; ITS rDNA.

Strain: KU-1540. **Origin:** Naruto, Tokushima, Japan (1995-10-24). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-100] Female gametophyte; ITS rDNA.

Strain: KU-1666. **Origin:** Maiko, Kobe, Hyogo, Japan (2006-9-7). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1670. **Origin:** Iwaya, Awaji Isl., Hyogo, Japan (2005-4-28). **Leg./Isol.** T. Hanyuda. **Culture:** PES; 15-20°C.

Ulva flexuosa Wulfen [= *Enteromorpha flexuosa* (Wulfen) J. Agardh]

Strain: KU-1319. **Origin:** Osaka Bay, Japan (2004-9). **Leg./Isol.** T. Hanyuda. **Culture:** PES; 15-20°C. **Note:** cryopreserved.

Strain: KU-1526. **Origin:** Shimoda, Shizuoka, Japan (1997-7-22). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-82]; ITS rDNA.

Strain: KU-1532. **Origin:** Yoshinogawa, Tokushima, Japan (1997-10-30). **Leg./Isol.** M. Hiraoka/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-90]; ITS rDNA.

Strain: KU-1618. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-16). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-137]; *rbcL*.

Strain: KU-1653. **Origin:** Suma, Kobe, Japan (2006-9-7). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1662. **Origin:** Maiko, Kobe, Hyogo, Japan (2006-9-7). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1664. **Origin:** Kobe, Hyogo, Japan (2007-2-19). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Ulva intestinalis Linnaeus [= *Enteromorpha intestinalis* (Linnaeus) Nees]

Strain: KU-1534. **Origin:** Shimamakimura, Hokkaido, Japan (1996-6-5). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C.

Ulva lactuca Linnaeus

Strain: KU-1603. **Origin:** Rumoi, Hokkaido, Japan (2000-8-18). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:**

PES; 15-20°C. **Note:** [HOK-118]; *rbcL*.

Ulva linza Linnaeus [= *Enteromorpha linza* (Linnaeus) J. Agardh]

Strain: KU-1096. **Origin:** Futami, Sado, Niigata, Japan (unknown). **Leg./Isol.** T. Hanyuda. **Culture:** PES; 15-20°C.

Strain: KU-1500. **Origin:** Yoshinogawa, Tokushima, Japan (1997-10-30). **Leg./Isol.** M. Hiraoka/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-51]; *rbcL*.

Strain: KU-1516. **Origin:** Oshoro, Hokkaido, Japan (1998-4-5). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-71]; ITS rDNA.

Strain: KU-1601. **Origin:** Mashike, Hokkaido, Japan (2000-8-18). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-116]; *rbcL*. **Reference:** Shimada et al. (2008).

Strain: KU-1602. **Origin:** Mashike, Hokkaido, Japan (2000-8-18). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-117]; *rbcL*. **Reference:** Shimada et al. (2008).

Strain: KU-1604. **Origin:** Furubira, Hokkaido, Japan (2000-9-14). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-119]; *rbcL*. **Reference:** Shimada et al. (2008).

Strain: KU-1613. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-131]; *rbcL*.

Strain: KU-1620. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-17). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-138]; *rbcL*.

Strain: KU-1621. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-17). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-139]; *rbcL*.

Strain: KU-1625. **Origin:** Mashike, Hokkaido, Japan (2000-8-18). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-145]; *rbcL*.

Strain: KU-1644. **Origin:** Oshoro, Hokkaido, Japan (1994-3-1). **Leg./Isol.** K. Kogame. **Culture:** PES; 15-20°C.

Strain: KU-1645. **Origin:** Oshoro, Hokkaido, Japan (1994-3-1). **Leg./Isol.** K. Kogame. **Culture:** PES; 15-20°C.

Strain: KU-1660. **Origin:** Iwaya, Awaji Isl., Hyogo, Japan (2006-7-14). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1677. **Origin:** Izumo, Shimane, Japan (2006-3-30). **Leg./Isol.** T. Hanyuda. **Culture:** PES; 15-20°C.

Strain: KU-2631. **Origin:** Shiokawa, Motobu, Okinawa, Japan (2005-10-4). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-156].

Ulva ohnoi Hiraoka et Shimada

Strain: KU-1525. **Origin:** Naha, Okinawa, Japan (1994-12-9). **Leg./Isol.** M. Hiraoka/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-81]; ITS rDNA, *rbcL*.

Strain: KU-1529. **Origin:** Hakata Bay, Fukuoka, Japan (1993-9-16). **Leg./Isol.** M. Hiraoka/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-85]; ITS rDNA, *rbcL*.

Strain: KU-1656. **Origin:** Kobe, Hyogo, Japan (2006-8-24). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1657. **Origin:** Kobe, Hyogo, Japan (2006-8-24). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1663. **Origin:** Kobe, Hyogo, Japan (2006-8-24). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Ulva pertusa Kjellman

Strain: KU-1323. **Origin:** cargo carrier vessel (2004-8-1). **Leg./Isol.** T. Hanyuda. **Culture:** PES; 15-20°C. **Note:** Isolated from ballast water.

Strain: KU-1652. **Origin:** Kobe Airport, Kobe, Hyogo, Japan (2006-8-24). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1655. **Origin:** Iwaya, Awaji Isl., Hyogo, Japan (2006-7-14). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1658. **Origin:** Maiko, Kobe, Hyogo, Japan (2006-9-7). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-1659. **Origin:** Maiko, Kobe, Hyogo, Japan (2006-9-7). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

Strain: KU-2556. **Origin:** Tomakomai, Hokkaido, Japan (2005-4-17). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-177].

Ulva tanneri Hayden et Waaland

Strain: KU-1665. **Origin:** Oiso, Awaji Isl., Hyogo, Japan (2006-7-14). **Leg./Isol.** K.C. Nakamura. **Culture:** PES; 15-20°C.

***Ulva* spp. [=Enteromorpha spp.]**

Strain: KU-1605. **Origin:** Itoman, Okinawa, Japan (2000-9-27). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-120]. **Reference:** Shimada et al. (2008).

Strain: KU-1606. **Origin:** Ishigaki Isl., Okinawa, Japan (2000-9-29). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-121] *Enteromorpha* sp.1. **Reference:** Shimada et al. (2008).

Strain: KU-1607. **Origin:** Ishigaki Isl., Okinawa, Japan (2000-9-29). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-123] *Enteromorpha* sp.2; *rbcL*. **Reference:** Shimada et al. (2008).

Strain: KU-1608. **Origin:** Ishigaki Isl., Okinawa, Japan (2000-9-29). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-124] *Enteromorpha* sp.3; *rbcL*. **Reference:** Ichihara et al. (2008), (2009).

Strain: KU-1609. **Origin:** Ishigaki Isl., Okinawa, Japan (2000-9-29). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-125] *Enteromorpha* sp.4. **Reference:** Shimada et al. (2008).

Strain: KU-1610. **Origin:** Tanegashima Isl., Kagoshima, Japan (2000-12-18). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-126] *Enteromorpha* sp.5; *rbcL*. **Reference:** Shimada et al. (2008).

Strain: KU-1626. **Origin:** Ishigaki Isl., Okinawa, Japan (2000-9-29). **Leg./Isol.** N. Yokoyama/S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-146] *Enteromorpha* sp.6.

Strain: KU-2550. **Origin:** Oshoro, Hokkaido, Japan (2005-4-4). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-171].

Strain: KU-2551. **Origin:** Oshoro, Hokkaido, Japan (2005-4-4). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-172].

Strain: KU-2552. **Origin:** Oshoro, Hokkaido, Japan (2005-4-4). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-173].

Strain: KU-2553. **Origin:** Oshoro, Hokkaido, Japan (2005-4-4). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-174].

Strain: KU-2554. **Origin:** Oshoro, Hokkaido, Japan (2005-4-4). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-175].

Strain: KU-2555. **Origin:** Oshoro, Hokkaido, Japan (2005-4-4). **Leg./Isol.** S. Shimada. **Culture:** PES; 15-20°C. **Note:** [HOK-176].

Valonia macrophysa Kützting

Strain: KU-992. **Origin:** Yura, Awaji Isl., Hyogo, Japan (2002-11-21). **Leg./Isol.** S. Uwai. **Culture:** PES; 10°C.