

**SCAGELOTHAMNION** Athanasiadis (1996, p. 80; type: *S. pusillum*)**Scagelothamnion pusillum** (Ruprecht) Athanasiadis (1996, p. 81)**Basionym** *Callithamnion pusillum* Ruprecht [1850, p. 150-1 (reprint p. 342-3)]**Type locality** Novaja Zemlja, Russian Arctic**Lectotype** LE ('Parasit auf Fuscaria, Ceramium, u.a', 'Call. pusillum Rupr...')**Homotypic synonyms** *Pterothamnion pusillum* (Ruprecht) Nägeli (1861, p. 414)*Antithamnion pusillum* (Ruprecht) Kjellman (1877, p. 24)*Scagelia pusilla* (Ruprecht) Athanasiadis in Maggs & Hommersand (1993, p. 30)**Heterotypic synonyms** ? *Scagelothamnion turneri* (Mertens in Roth) Athanasiadis (2016, p. 862)*Ceramium turneri* Mertens in Roth (1806, p. 127-8, f.5 a-d; typlokal: Cromer, Norfolk; lectotype: Roth's, orig.illustr. f.5 b)*Conferva turneri* (Mertens in Roth) Dillwyn (1809, pl.100, 79, **excl.illustrations & descr.= *Spermothamnion repens***)*Spermothamnion turneri* (Mertens in Roth) Areschoug [1847, p. 334 (1850, p. 112-3), **excl.specimens**]*Callithamnion turneri* (Mertens in Roth) S.F.Gray (1821, p. 325)*Herpotheramnion turneri* (Mertens in Roth) Nägeli (1861, p. 348, 351, 415, **excl.specimens**)*Spermothamnion repens* f. *turneri* (Mertens in Roth) Rosenvinge (1924, p. 298-9, **excl.specimens**)*Spermothamnion repens* var. *turneri* (Mertens in Roth) Børgesen (1930, p. 11, **excl.specimens**)*Callithamnion lapponicum* Ruprecht [1850, p. 148, pl. 18, figs k-m; type locality: 'Lapponia rossica'; lectotype: LE (a specimen from the mica slip A in the folder annotated 'Lapp. rossica; Middendorff, *Callithamnion lapponicum* Rupr. strato tenuissimo Nulliporan obu..')]*Pterothamnion lapponicum* (Ruprecht) Nägeli (1861, p. 376)? *Antithamnion plumula* (Ellis) Thuret var. *boreale* Gobi (1878, p. 47; type locality: Solowetzki I., White Sea; type: not designated)*Antithamnion boreale* (Gobi) Kjellman (1883, p. 180)? *Antithamnion boreale* f. *balticum* Reinke [1889a, p. 23, 'baltica'; syntype localities: Schleimuende, Eckernförder Nordgrund, Noerdlich der Kieler Föhrde, NW Fehmarn (Baltic Sea); type: not designated; 1889b, p. 25, pl. 22]**Note** it is postulated that *Scagelothamnion pusillum* is a hybrid between *Scagelia americana* and a North Atlantic species of *Pterothamnion*, on the basis of (i) an intermediate morphology, (ii) the cytological and life history evidence, and (iii) occurrence in the overlapping zone of its parental taxa and parts of their wider distribution (Athanasiadis 1996)***Scagelothamnion pusillum* var. *pusillum*****Distribution** NE Atlantic and Arctic Oceans: Novaja Zemlja, Spitsbergen, Iceland, Greenland, Scandinavia and Denmark to the German coast of Baltic and the British Isles; also reported between New Brunswick and the Canadian Arctic (Lee 1980)**Habitat** common on macroalgae (particularly on *Laminaria* haptera), bryozoans, and ascidians in the sublittoral zone (on the Scandinavian coast, usually recorded between 10 and at least 50 m depth)***Scagelothamnion pusillum* var. *droebakense*** (Sundene) Athanasiadis (1996, p. 82)**Basionym** *Antithamnion boreale* (Gobi) Kjellman var. *droebakense* Sundene (1962, p. 16, figs 2-4, pl. I, figs 1-4, 'droebachense')**Type locality** Harbour of the Biological Station at Drøbak, Oslofjord, South Norway**Lectotype** the specimen depicted in Sundene's (1962, pl. I, figs 3, 4) original illustrations**Distribution** restricted to brackish waters of sheltered habitats in southern Scandinavian and Danish fjords**Habitat** common in early spring growing on stones and macroalgae in the upper sublittoral zone between low water level and ca. 5 m depth**KEY TO VARIETIES**

1. Thallus up to 4 cm long, bearing distichous-opposite whorl-branches; tetrasporangia common, recycling the sporophyte phase; gametangia rarely present on tetrasporophytes.....var. *pusillum*
1. Thallus up to 25 cm long, bearing distichous-opposite to decussate whorl-branches; tetrasporangia abortive and gametangia unknown.....var. *droebakense*

## REFERENCES

- Agardh, J. G. 1852. *Species genera et ordines algarum*. Vol. 2, part 3 (1). - Lund
- Agardh, J. G. 1892. *Analecta algologica*. Observationes de speciebus algarum minus cognitis earumque dispositione. - Lunds Univ. Årsskr. 28: 1-182, 3 pls
- Areschoug, J. E. 1847. *Phycearum, quae in maribus Scandinaviae crescunt, enumeratio*. Sectio prior *Fucaceas* continens. - Nova Acta Reg. Soc. Sc. Ups. 13: 223-382 + 9 pls.
- Areschoug, J. E. 1850. *Phyceae Scandinavicae Marinae, sive Fucacearum nec non Ulvacearum, quae in maribus paerinsulam Scandinavicam alluentibus crescunt, descriptiones*. (Fucaceae ex Actor. Upsaliens. Vol. XIII. Ulvaceae ex Actor. Upsaliens. Vol. XIV.). - Leffler & Sebell, Upsaliae
- Athanasiadis, A. 1996. Morphology and classification of the Ceramioideae (Rhodophyta) based on phylogenetic principles. - Opera bot. 128: 1-216
- Athanasiadis, A. 2016. *Phycologia Europaea Rhodophyta*, Vols 1 & 2. - Published by the author, Gothenburg, xxxiii + iv + 1504 pp.
- Athanasiadis, A. & Rueness, J. 1992. Biosystematic studies of the genus *Scagelia* (Rhodophyta, Ceramiales) from Scandinavia: genetic variation, life histories, and chromosome numbers. - Phycologia 31: 1-15
- Børgesen, F. 1930. Marine algae from the Canary Islands, especially from Teneriffe and Gran Canaria. II. Rhodophyceae. Part III. Ceramiales. - Dan. biol. Medd. 9: 1-159
- Cormaci, M. & Furnari, G. 1989. World distribution of the genus *Antithamnion* Naegeli (Rhodophyta, Ceramiaceae). - Jpn. J. Phycol. (Sorui) 37: 23-30
- Dillwyn, L.W. 1802-09. *British Confervae or coloured figures and descriptions of the British plants, referred by Botanists to the genus Conferva*. - London
- Farlow, W. G. 1881. *The marine algae of New England*. - Rep. U. S. Fish Comm. for 1879
- Gardner, N. L. 1927. New Rhodophyceae from the Pacific coast of North America. IV. - Univ. Calif. Publ. Bot. 13(18): 373-402, pls 73-83
- Gobi, C. 1878. *Die Algenflora des Weissen Meeres*. - Mem. Acad. Imp. Sci. St. Petersburg, VII Serie 26: 1-92
- Gray, S.F. 1821. *A natural arrangement of British Plants*. Vol. 1. - Baldwin, Craddock and Joy, London
- Hansen, G. I. & Scagel, R. F. 1981. A morphological study of *Antithamnion boreale* (Gobi) Kjellman and its relationship to the genus *Scagelia* Wollaston (Ceramiales, Rhodophyta). - Bull. Torr. Bot. Club 108: 205-212
- Harvey, W. H. 1853. *Nereis boreali americana* - Contributions to a history of the marine algae of North America. - Smiths. Contr. Knowl. 5: 1-258, pls 13-36
- Kjellman, F. R. 1877. Ueber die Algenvegetationen des Murmanschen Meeres av der Westküste von Nowaja Semlja und Wajgatsch. - Nova Acta Reg. Soc. Sc. Ups. Ser. 3: 1-86, 1 pl
- Kjellman, F. R. 1883. *Norra Ishafvets Algflora*. - Vega-Exped. Vetensk. Arb. 3: 1-431, 31 pls
- Kylin, H. 1925. The marine red algae in the vicinity of the biological station at Friday Harbour, Washington. - Lunds Univ. Aarsskr. N. F. Avd. 2, 21: 1-87
- Lee, R. K. S. 1980. A catalogue of the marine algae of the Canadian Arctic. - Nat. Mus. of Canada Publ. in Bot. 9: 1-82
- Lindstrom, C. S. & Gabrielson, P. W. 1989. Taxonomic and distributional notes on northeast Pacific *Antithamnion* (Ceramiales, Rhodophyta). - Jpn. J. Phycol. (Sorui) 37: 221-235
- Maggs, C. A. & Hommersand, M. H. 1993. *Seaweeds of the British Isles*. - HMSO (Her Majesty's Stationery Office)
- Montagne, J. P. F. C. 1837. *Centurie de plantes cellulaires exotiques nouvelles*. - Ann. Sci. nat. Paris Ser. 2, 8: 345-370
- Nägeli, C. 1861. Beitrage zur Morphologie und Systematik der Ceramiaceae. - Sber. k. bayer. Akad. d. W. 1861, 2: 297-415, 1 pl
- Perstenko, L. P. 1984. *Novitates systematicae plantarum non vascularium*. - Acad. sci. URSS Inst. bot. V. L. Komarov VII 21: 41-50

- Reinke, J. 1889a. Algenflora der westlichen Ostsee deutschen Antheils. Eine systematisch-pflanzengeographische Studie. - Sechster Ber. d. Komm. z. wiss. Unters. deutsch. Meere in Kiel für die Jahre 1887 bis 1889, 17-19 (I. Heft): [i]-xi + 1-101 + 1 map
- Reinke, J. 1889b. Atlas deutscher Meeresalgen. Heft I. - Herausgegeben von d. Komm. z. Wiss. Unters. deutsch. Meere, Berlin
- Rosenvinge, L. K. 1893. Groenlands Havalger. - Medd. Groenland 3: 765-981, 2 pls
- Rosenvinge, L. K. 1924. The marine algae of Denmark contributions to their natural history Part III. Rhodophyceae III. (Ceramiales). - Det kgl. dan. Vidensk. Skr., 7 Raekke Naturv. og Mathem. Afd. 7 [1923-1924]: 285-487, 3 pls.
- Roth, A.G. 1806. Bemerkungen über das Studium der cryptogamischen Wassergewächse. - Hannover
- Ruprecht, F. J. 1850. Algae Ochotenses. Die ersten sichern Nachrichten ueber die Tange des Ochotskischen Meeres. - Petersburg
- Sundene, O. 1962. Reproduction and morphology in strains of *Antithamnion boreale* originating from Spitsbergen and Scandinavia. - Skr. norske Vidensk-akad. Mat.-naturw. Kl. Ser. 5: 1-19, 3 pls
- Wollaston, E. M. 1972. *Antithamnion* and related genera occurring on the Pacific coast of North America. - *Syesis* 4: 73-92
- Wynne, M. J. 1985. Concerning the names *Scagelia corallina* and *Heterosiphonia wurdemannii* (Ceramiales, Rhodophyta). - *Crypt. Algol.* 6: 81-90
- Yoshida, T. 1981. Observations on *Antithamnion miharae* Tokida and *A. corallina* Kjellman (Rhodophyta, Ceramiales) from the east coast of Hokkaido. - *Jap. J. Fac. Sci. Hokkaido* 12: 173-182

#### FURTHER READING

- Athanasiadis, A. 2002. Recent additions to the subfamily Ceramioideae (Rhodophyta) and the nature of the Ceramialean ancestor. - [Constancea](#) 83.6

**Note** this is a periodically updated electronic file, to be regarded as a preliminary version not effectively published (Art. 30.2).