

## Updates to some names used for microalgal taxa in Australia

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Day *et al.* (1995) compiled the first comprehensive check-list of the non-marine algae in Australia. This list forms the basis for part of the Australian National Species List ([NSL](#), which will have a complete list for the algae at a later date). Some of the names require nomenclatural validation prior to inclusion in the NSL. The nomenclatural status of a parasitic dinoflagellate is also clarified.

***Synedra ulna* var. *delicatula*** (Ant.Mayer) A.D.Hardy ex R.A.Townsend, *comb. nov.*

Basionym: *Synedra delicatula* Ant.Mayer *Kryptogamische Forschungen herausgegeben von der Kryptogamenkommission der Bayerischen Botanischen Gesellschaft zur Erforschung der heimischen* 1(4): 197, 212, 1919.

Notes: The invalid designation “*Synedra ulna* var. *delicatula* (Ant.Mayer) unknown authority” is listed in AlgaeBase (Guiry & Guiry 2020) based upon a record in Day *et al.* (1995). This name first appeared in manuscripts compiled by Alfred Douglas Hardy (1870-1958) from 1931-1956 but is invalid as it appeared in a manuscript that did not meet the requirements for effective publication (ICN Arts 29, 30; Turland *et al.* 2018). The appropriate combination is validated here.

***Tribonema bombycinum* var. *pallidum*** (Kütz.) R.A.Townsend, *comb. nov.*

Basionym: *Conferva bombycina* var. *pallidum* (*‘pallida’*) Kützing, *Species algarum*, p. 372, 1849.

Notes: “*Tribonema bombycinum* var. *pallidum* (Kützing) unknown authority” appears in AlgaeBase as a name of uncertain status. Day *et al.* (1995: 256) list *Tribonema bombycinum* var. *pallidum* Kützing and *Conferva bombycina* var. *pallidum* Kützing and attribute the record to Entwisle (1994). The combination was not validated by Entwisle (1994) and is validated here.

***Triploceras gracile* f. *undulatum*** (A.M.Scott & Prescott) R.A.Townsend, *comb. nov.*

Basionym: *Triploceras gracile* var. *undulatum* A.M.Scott & Prescott *Records of the American-Australian Scientific Expedition to Arnhem Land* 3: 27, fig. 3: 8, 1958.

Notes: “*Triploceras gracile* f. 1” *sensu* H.U.Ling & P.A.Tyler appears in the freshwater literature of Australia (Ling & Tyler 1986: 55). Ling & Tyler remark, “This plant is identical to *Triploceras gracile* var. *undulatum* described by Scott and Prescott (1958a, p. 27, fig. 3: 8)” but the authors include only a numbered form. Such unnumbered forms have no status nomenclaturally and it seems appropriate to validate the name here pending further studies.

***Hematodinium australe*** D.A.Hudson & J.D.Shields

This dinoflagellate was described parasitising crabs in Moreton Bay, Queensland. A very descriptive and useful account was provided (Hudson & Shields 1994, as *Hematodinium australis*). Since the name does not appear in INA and appears with minimal information in AlgaeBase we here clarify the status of the name.

Description and illustrations: *Diseases of Aquatic Organisms* 19: 111-113 figs 6-9 (Hudson & Shields 1994).

Type locality: Australia: Queensland: Brisbane: Moreton Bay, 153° 06' E, 27° 18' S (Hudson & Shields 1994).

Type (“Hapantotype”): slide and an EM block deposited with the Invertebrate Section of the Queensland Museum, Accession Numbers G 211359, material from a crab, *Portunus pelagicus*, collected 21 March 1992 (Hudson & Shields 1994).

Etymology: the specific epithet, *australe*, refers to the southern continent, Australia, the region in which the parasite was discovered (Hudson & Shields 1994).

Notes: Although the Hudson & Shields (1994) do not mention the International Code of Zoological Nomenclature (ICZN), their use of the term “hapantotype” and the family name “Syndini[i]dae” provides internal evidence that they intended to use the ICZN. Accordingly, under ICN Art. 45 (Turland *et al.* 2018) this name is valid as it satisfies the requirements of the ICZN for validity. “Hapantotype” is a term not used in Botany but is employed in Zoology for a preparation or preparations consisting of directly related individuals representing distinct stages in the life cycle.

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