# *Ulva vietnamensis* L.-A.T.Tran, Leliaert & De Clerck is a heterotypic synonym of *Ulva tentaculosa* Lagourgue & Payri (*Ulvaceae, Chlorophyta*)

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Species of the green seaweed *Ulva* Linnaeus (*Ulvaceae, Chlorophyta*) are economically and ecologically important. In many parts of the world, they are consumed as food, especially in Japan (as 'aonori'), and are used as animal feeds, fertilizer, medicine, and as packing materials for seafoods (Trono 1997). More recently, *Ulva* received considerable attention as some species form notoriously massive blooms ('green tides') resulting in economic losses and negatively impacting local ecosystems (Liu & al. 2013). Considering this, recent studies have focused on clarifying species identities, especially the green tide-forming taxa. Among these studies are those of Lagourgue & al. (2022) and Tran & al. (2023) whose works focused on *Ulva* species found in New Caledonia in the south-western Pacific and in Vietnam in the north-western Pacific, respectively. Lagourgue & al. (2022) described 10 new species from New Caledonia, which include *U. tentaculosa* Lagourgue & Payri, a tubular species with filamentous branchlets. Tran & al. (2023) described a single new taxon, *U. vietnamensis* L.-A.T.Tran, Leliaert & De Clerck, likewise a tubular species with filamentous branchlets. A re-analysis of the species relationships of the holotypes of *U. tentaculosa* and *U. vietnamensis* based on *tuf*A, *rbc*L, and ITS sequence data (Fig. 1) suggested that the two species are conspecific. Based on their original descriptions, *U. tentaculosa*, when compared with *U. vietnamensis*, is smaller in size (≤4 cm tall *vs* ≤30 cm) and has smaller cell sizes [10–21 µm × 10–20 µm × 20–22 µm (L × W × H) *vs* 13–30 µm × 10–34 µm × 16–26 µm] (Lagourgue & al. 2022, Tran & al. 2022). Both taxa share similar morphological features; for example, the reported number of pyrenoids per cell of both taxa are within the similar ranges (2–5 pyrenoids in *U. vietnamensis*; 3–4 pyrenoids in *U. tentaculosa*) (Lagourgue & al. 2022, Tran & al. 2022). Despite some morpho-anatomical differences, *Ulva* species are known to exhibit considerable phenotypic plasticity, and considering the molecular congruity, both taxa should be considered as a single species. As *U. tentaculosa* (published online 21 Feb. 2022) has priority over the more recently described *U. vietnamensis* (published online 5 Nov. 2022), the latter should be considered a later heterotypic synonym of the former.

*Ulva tentaculosa* Lagourgue & Payri (in Lagourgue & al.), p. [10] 467, figs 40–45, 21 Feb. 2022
Holotype: NOU218829, 12 July 2020, *leg.* C.E. Payri, deposited in NOU (Lagourgue & al., 2022).
Type locality: western coast of Grande Terre, Cap Goulevain, New Caledonia (Lagourgue & al., 2022).
Heterotypic synonym: *Ulva vietnamensis* L.-A.T.Tran, Leliaert & De Clerck (in Tran & al.) *Phycological Research* 71(1): 20, fig. 4. 5 Nov. 2022 ['2023'].
Known distribution: New Caledonia, French Polynesia, Vietnam (Lagourgue & al. 2022, Tran & al. 2023).

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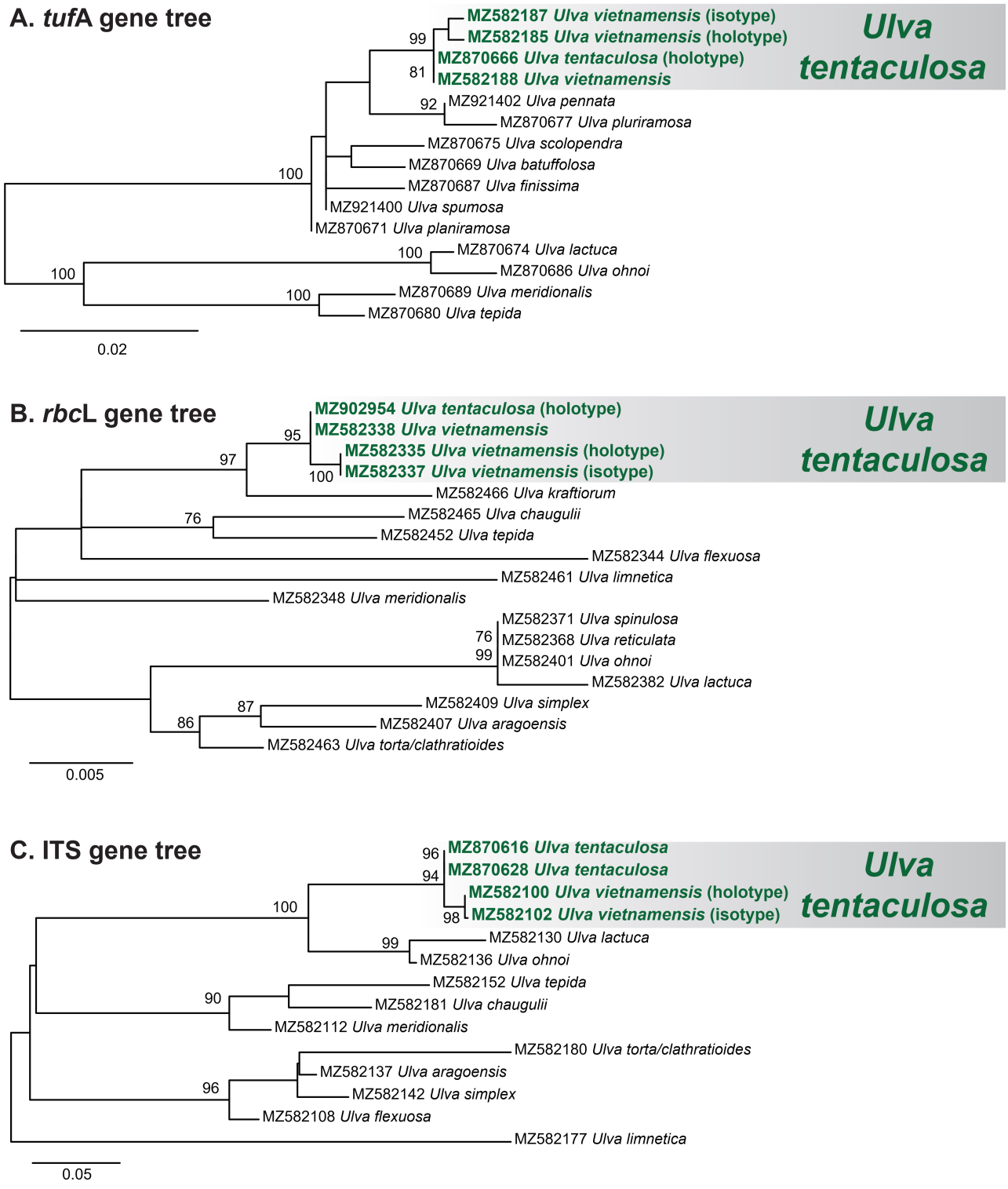


**Fig. 1.** Molecular trees of some *Ulva* from the western Pacific Ocean based on (A) *tuf*A, (B) *rbc*L, and (C) ITS sequence data. Values shown at nodes are Maximum Likelihood (ML) bootstrap percentages (BP); values below <75% BP not shown. Molecular analyses (ML) followed those described in Santiañez & al. (2018).